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ABSTRACT

The Precollege Summer Camp Opportunity for Potential Educators (SCOPE) project was a minority recruitment and retention program designed to attract academically challenged tenth and eleventh grade students into teaching careers in mathematics and science. This three-year project offered a six-week summer camp for 50 precollege minority students in each of the three years. Project goals included: (1) recruiting minority students for teaching careers, (2) providing early clinical experiences, (3) increasing minority students' access to advanced mathematics and science courses, and (4) presenting seminars conducted by master teachers and role models. Program activities involved an intensive enrichment curriculum in mathematics, science, communication skills, technology in teaching, and video mock teaching episodes. Courses were designed to incorporate cooperative learning, real life application, multimedia technology, peer coaching, and mentoring. Other activities included cultural enrichment programs, field trips, and seminars. Analysis of evaluation data showed a high level of attainment of the project goals. Report sections cover: project overview, purpose, background and origins, project description, evaluation and results, evaluation summary, and conclusions. Eleven appendixes include: project issues statement and application materials; activity schedules; course syllabi; analysis of pre/post tests in algebra; sample evaluation forms; a follow-up survey packet; a list of seminars and field trips; academic follow-up letters; and a sample newsletter. (JLS)

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FIPSE FINAL REPORT
COVER SHEET

PRECOLLEGIATE SUMMER CAMP OPPORTUNITY FOR POTENTIAL TEACHERS (SCOPE)

Grantee Organization:

Clark Atlanta University
MASTER Institute for Teachers
P.O. Box 171
Atlanta, Georgia 30314

Grant Number:

P116B00696

Project Dates:

Starting Date: October 1, 1990
Ending Date: September 30, 1993
Number of Months: 36

Project Director:

Bettye M. Clark, Director
Master Institute for Teachers
Clark Atlanta University
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FIPSE Program Officer(s): Joan Straumanis

Grant Award:	**Year 1**	$ 80,249
	Year 2	$ 80,249
	Year 3	$ 75,929
	Total	$236,427

HE 030 854

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PROJECT SUMMARY

The Precollege Summer Camp Opportunity for Potential Educators (SCOPE) project was a minority recruitment and retention program designed to attract academically challenged tenth (10th) and eleventh (11th) graders into teaching mathematics and science. The project sought to develop a precollege summer camp model to recruit and stimulate the interest of precollege minority students for careers in teaching at the k-12 level. The SCOPE model provided a unique opportunity for content enrichment and an introduction to professional development and innovative teaching strategies. SCOPE was funded as a three year project to offer a six-week summer camp for one hundred fifty (150) precollege minority students (fifty each year), entering the tenth and eleventh grade in their next school year. Participants were selected based on their exceptional mathematics and science achievement and their demonstrated leadership ability. Program activities involved an intensive enrichment curriculum in mathematics, science, communication skills, technology in teaching, and video mock teaching episodes. All courses were designed to incorporate the latest recommendations and research in teaching (cooperative learning, real life application, multimedia technology, peer coaching, and mentoring). In addition to these components, other activities included cultural enrichment programs in the evening, weekly field trips to informal education agencies such as Zoo Atlanta, SciTrek, Fernbank Science Center, etc., and seminars by consultants from education, business and industry. Exemplary teachers at the public school and university level served as instructors and role models in the program. The analysis of the data collected for the evaluation of the project revealed a high level of attainment of the following goals and objectives of the project:

Overall Goal: To provide an innovative academic and professional enrichment six-week summer camp for potential teachers of mathematics and science.

Objectives:

(1) To recruit minority students for careers in teaching mathematics and science.

(2) To provide early clinical experiences with "mock" teaching exercises and tutoring.

(3) To increase the access of minority students in advanced mathematics and science courses.

(4) To conduct seminars by master teachers and role models to stimulate an interest in teaching.

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Project Reports/Products:
SCOPE Application and Acceptance Packet
SCOPE Schedules 1991-1993
Sample SCOPE Course Syllabi
Pre/Post Tests Data 1991-1993
Summary of Student Follow-Up Survey Packet and Analysis
SCOPE Seminars and Field Trips 1991-1993
Academic Follow-up - Student, Teacher/Administrator/Parent Letters
SCOPE Newspaper and News Release
SCOPE Video Tape

EXECUTIVE SUMMARY

Title: Precollegiate Summer Camp Opportunity for Potential Teachers (SCOPE)

Grantee Organization: Clark Atlanta University
P.O. Box 171
Atlanta, Georgia 30314

Project Director: Dr. Bettye M. Clark
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Telephone: (404) 880-8188

Project Overview: In an effort to help combat the crisis in mathematics and science education, Clark Atlanta University (CAU) submitted a proposal to FIPSE in 1989, to address the need to increase the pool of minority teachers in mathematics and science. The proposal requested funds for a six-week, nonresidential, summer camp to serve 150 rising tenth and eleventh grade students over three years. FIPSE awarded CAU a three year grant, 1990-1993, to develop and implement the Summer Camp Opportunity for Potential Educators (SCOPE) program. SCOPE was designed to recruit and retain minority students in mathematics and science and to stimulate the interest of these students in teaching mathematics and science at the k-12 level. Supplementary funds were acquired, during the first year of operation from the Exxon Education and General Mills Foundations to enable CAU to support SCOPE as residential camp, during its first year of operation. This afforded the program to reach students from all over the nation.

SCOPE included classroom, laboratory, and research experiences, tutorials, field trips and social and cultural enrichment activities. The curriculum featured more active learning; hands-on experiences; real life contexts; small group cooperative learning; critical and creative thinking, problem solving, reasoning and connections; emphasis on data analysis, probability and statistics and geometry. All courses were designed to incorporate the latest recommendations and research in teaching (cooperative learning, real life application, multimedia technology, peer coaching and mentoring). In addition to these components, other activities included cultural enrichment programs in the evening, weekly field trips to informal education agencies such as Zoo Atlanta, SciTrek, Fernbank Science Center, etc., and seminars by consultants from education, business and industry. The services of staff, student mentors and external professionals were employed to implement the program.

A total of one hundred fifty (150) minority, precollege students have participated in SCOPE over the three year period. Most of these students were motivated to choose the teaching of mathematics and science. Many indicated that their academic experience and especially the video mock teaching episodes was the most rewarding and helped them to consider teaching as a career. The academic follow-up surveys and interviews with SCOPE participants and their teachers indicated that many students enrolled in advanced mathematics and science courses upon returning to their respective schools. SCOPE was designed around a series of innovative and nurturing components and activities that proved to be valuable for encouraging and motivating minority students to consider careers in teaching mathematics and science. These components included mentors, African-American role models in teaching, businesses and industry. Special seminars were conducted each week by professionals from business and industry that connected the mathematics and science taught in class to real-life

contexts. Students were required to keep journals of these seminars. At the end of the project, participants post test data showed an increase in achievement in mathematics and science across the board. The post test data in English did not reveal an increase in improvement for all students. Many factors may have contributed to these results. The project staff realizes that more emphasis was put on mathematics and science achievement, which may have accounted for the differences in performance in these areas.

To determine the attainment of objective three (to increase the access of minority students in advanced mathematics and science courses) a follow up was developed and mailed to all participants, their teachers and counselors. The results of the survey sent to participants and their teachers and counselors (see appendix) indicated that all the participants who responded to the survey had enrolled in advanced mathematics and science courses and were showing an improvement in achievement in these courses. The teachers' and counselors' responses indicated that many of the participants had a renewed attitude toward learning and better study habits. The rising 11th graders in the 1991 SCOPE program are the only group that would have entered college by the end of the project. Telephone surveys were conducted to this group to measure the effect or results of the precollege recruitment model to determine how many of these participants had enrolled in college with majors in mathematics or science education programs with intent to become teachers. The result indicated that of the thirty students we were able to reach, 100% of them had enrolled in a college or university and had chosen mathematics or science as a major. Nine of these students or 30% indicated that they enrolled in a teacher education program in mathematics or science. Five of these (16%) indicated majors in teaching at the middle school level. Two of these students received scholarships at Clark Atlanta University. Based on these results, we are convinced that this model is an effective model for recruiting minorities into teaching mathematics and science.

Purpose: SCOPE was a minority recruitment and retention program designed to stimulate the interest of precollege academically challenged minority students in teaching mathematics and science at the K-12 levels. The program provided skills development, training and personal development experiences to prepare precollege minority youth to enter mathematics and science teaching careers. SCOPE offered an opportunity to provide an enhanced learning environment and necessary support systems to prepare, stimulate, and encourage minority youth to seek advanced mathematics and science courses and pursue careers in the teaching of mathematics and science. The project is better approached with a residential program for minority students. This feature gives the participants that needed sense of independence and security. Additionally it gives the project staff the needed control over time and responsibilities constraints. It eliminates the dependency on parents to get the students to class on time and pick them up on time. Nonresidential programs of this nature have proven ineffective due to the lack of control over time and required responsibilities of participants. With residential programs, minority students gain a sense of responisbilty and acquire a desire to compete and be on time and do the necessary work to remain in the program. This feature also provided an orientation to college life that serves as a motivation for continuing their education and enrolling in college. A residential program is much more costly to operate but proves more effective in achieving the desired results. Through additional funding from Exxon and General Mills we were able to offer SCOPE as a residential program for the entire duration of the project.

Background and Origin: SCOPE was housed under the MASTER Institute for Teachers, directed by Dr. Bettye Clark, established in 1989 at CAU to help address the underrepresentation of minority students and teachers in mathematics and science education. It was also designed to provide an infrastructure for the University to become a leading institution in mathematics and science education for minorities. The Institute serves as a vital

resource, research, and demonstration center to meet the modern crisis in mathematics, science, and technology education. Major funded programs implemented under the MASTER Institute umbrella provide precollege, preservice and inservice training for students and teachers at the elementary, middle, high school, college and university levels. The institute also provides support to the Metro Atlanta school systems in the incorporation of mathematics and science education reforms and instructional technologies.

Project Description: The main features of SCOPE were the recruitment and retention of potential mathematics and science educators. SCOPE recruited students at the tenth and eleventh grade levels and provided a series of summer educational experiences designed to motivate these students to choose the teaching of science and mathematics as future careers. It provided opportunities to study and research teaching and learning styles through a curriculum which included superlative academic enrichment, apprentice mentor small group exchange, and video "mock" teaching experiences. The incorporation of technology via computer assisted instruction, interactive video and calculators were an integral part of the curriculum. Classroom instruction was supplemented by hands-on laboratory experiences and manipulation. Advising, mentoring, monitoring and motivating served as key aspects of SCOPE.

The curriculum included enrichment courses in mathematics, science, communications skills, technology in learning, teaching strategies. All participants were given a pre and post test in Mathematics, English and Survey of Study Skills Habits and placed in Section I (more advanced) or Section II (less advanced). PSAT or SAT scores, grades in mathematics courses, and recommendations from teachers were also taken into consideration for placement. Students who received perfect scores or at least 90% on both tests were given the MAPS Functions and Graphs to determine if the student was ready for Trigonometry and possibly Calculus. In the first and second years of the project, based on the results of the test, students were permitted to audit a pre-freshman Trigonometry course, at no cost to the program. In the third year of the project, we added the Precalculus Trigonometry course to the curriculum and a third section for these students. The course was designed to include concepts in the first and second chapters of any calculus text.

Evaluation/Project Results: The evaluation design provided for both formative and summative evaluation and was constructed around four broad goals: academic, affective, career development, and learning environment. These goals had corresponding subcategories, academic achievement, academic path, academic aptitude, attitudes, career maturity, high school environment, and CAU environment. Data indicated that the SCOPE Program has been successful in attaining its intended outcomes of increasing and providing a better prepared pool of potential minority teachers, and increasing the enrollment of minority and female students in high school advanced mathematics and science courses. The success of this program was disseminated throughout the state and was listed as an exemplary project in the Governors Report. The project has been presented at several local, regional, and national meetings of mathematics and science educators. In 1993, the SCOPE program was expanded to include rising twelfth graders and prefreshman through the NSF Statewide Systemic Initiative. The project is funded for five years and will allow the project staff to conduct a longitudinal study of all SCOPE participants to determine how many enrolled in teaching mathematics and science. This project also awards scholarships to ten students over the five year period. As a result of SCOPE funding we are well on our way to increasing and recruiting a pool of academically gifted minority students in mathematics and science education.

Summary and Conclusions: Clark Atlanta University has implemented a successful six-week, summer program for one hundred fifty (150) precollege students who have shown an interest in and potential for choosing the teaching of mathematics or science as a career. SCOPE has served to increase the number of students accessing advanced mathematics and science courses and the pool of potential minority science and mathematics teachers. (See Appendices for the analysis of Follow-up Surveys.) This program which has been included in the Governor's Georgia 2000 Resource Manual of Exemplary Programs has had a positive impact on the incorporation of mathematics and science curriculum reform and instructional technologies by the Metro Atlanta school systems.

Appendices: The Appendices of this document include a FIPSE Issues Statement, Program Materials, Evaluation Reports, Pertinent Forms, Schedules and Student, Administrator, Teacher, and Parent Statements.

FINAL REPORT

Project Overview:

In the late 1980's, Clark Atlanta University (CAU) reviewed several studies on the status of mathematics and science education in the areas of Science and Engineering Workforce; Student Achievement in Science and Mathematics; Teachers and Training; Mathematics and Science Curricula and Resources and Support Systems. The aforementioned studies revealed a high level of consensus among the education, scientific and business communities regarding a critical need for mathematics and science education reform. Data from each of the studies indicated serious challenges including a shortage of qualified people in the science and engineering workforce, below average scores of U.S. students on international tests of mathematics and science skills, a problem of acquisition and maintenance of high quality faculty to teach science and mathematics courses at the pre-college level, significant proportions of students avoiding advanced course work and inadequate, science and laboratory equipment and materials in many classrooms. The studies recommended the following actions:

- Establishing a high level task force comprised of representatives of government, industry and education to address pre-college mathematics, science and technology education reform;
- Establishing undergraduate teacher education centers;
- Focusing on reaching, motivating and cultivating a pre-collegiate mathematics and science talent pool through the provision of formal and informal learning opportunities;
- Recruiting a pool of science and mathematics teachers at the pre-college level and retaining these potential teachers via professional scientific and research work experience designed to strengthen their content knowledge, currency, confidence and professional development;
- Reforming, updating and/or establishing a national consensus on the content, scope and sequence of science/mathematics curriculum, with emphasis on mathematics instruction and the incorporation of technology in mathematics and science instruction;
- Supporting early and life-long science education through financial, human and technical resources, including the involvement of scientists and engineers in science education and
- Strengthening research on teaching and learning through the establishment of centers, the measurement of higher order thinking skills and increased science hands-on activities.

Based on the above recommendations, the CAU administration made a commitment to establish the MASTER (Mathematics and Science Teacher Educational Research) Institute for Teachers. The overall goals of the Institute are to serve as a resource, research and demonstration center to meet the modern crisis in mathematics, science and technology education for minorities and to provide an infrastructure for the University to become a leading institution in mathematics and science education initiatives. The MASTER Institute for Teachers, housed in the School of Education, serves as an umbrella for the University's mathematics and science initiatives.

In 1989, Clark Atlanta University submitted a preliminary proposal to the U.S. Department of Education through FIPSE. A Pre-Freshman summer enrichment activity was one of the components of the proposed program. As a result of the negotiating process, CAU was funded to implement the Summer Camp Opportunity for Potential Educators (SCOPE) as a means of addressing the critical shortages of minority science and mathematics teachers. This model precollege program had the following foci: (1) To recruit, retain and stimulate the interest of a cadre of Pre-college minority students for careers in teaching mathematics and science; (2) To provide a superlative and different academic and professional enrichment curriculum designed to motivate students to learn more mathematics and science, thus, increase the access of SCOPE participants in more advanced mathematics and science courses; (3) To provide a pool of talented role models for minority elementary and secondary students and (4) To ultimately provide a talent pool of highly qualified and creative minority students for selection into future teaching careers and graduate studies in mathematics and science. The FIPSE SCOPE proposal was funded as a six-week, non-residential summer camp for a three year period (October 1, 1990 - September 30, 1993). Upon acceptance of the grant, Dr. Bettye M. Clark, Director, MASTER Institute for Teachers was appointed as Principal Investigator. Through supplementary support from the Exxon Education and General Mills Foundations, SCOPE became a residential camp, during its first year of operation and reached students from all over the nation.

The SCOPE objectives were (1) To recruit at least fifty (50) minority rising tenth and eleventh grade students, each year of the grant, to participate in a summer camp designed to motivate them to choose the teaching of mathematics and science; (2) To provide on-going early clinical experiences with "mock" teaching exercises and tutoring for younger minority students; (3) To increase the access of minority students in advanced mathematics and science courses by 20% each year of the grant and (4) To conduct at least five seminars by master teachers to stimulate an interest in learning, each year of the grant.

The goals and objectives of SCOPE were met via a curriculum which featured more active learning; hands-on experiences; "real life contexts"; small group cooperative learning; critical and creative thinking, problem solving, reasoning and connections; emphasis on data analysis, probability and statistics and geometry; emphasis on the incorporation of technology in classroom teaching and learning process; video "Mock" Teaching Episodes; exemplary teachers, as role models and seminars conducted by practicing professionals in education, business and industry. The program included classroom, laboratory and research experiences, tutorials, field trips and social, cultural and enrichment activities. The services of staff, student mentors and external professionals were employed to implement the program.

Each year of the grant, over three hundred SCOPE announcements and application forms were sent to public and private precollege school counselors and department chairpersons across the nation. Fifty (50) students who met the GPA criteria and whose letter of recommendation and personal essay showed a keen interest in teaching mathematics and/or science were selected to participate in the Summer Camp. Table I provides data on the numbers of applicants and participants over the three year period.

TABLE I
CLARK ATLANTA UNIVERSITY
SCOPE PARTICIPANT DATA 1991-1993

YEAR		APPLIED	ACCEPTED	ENROLLED
1991	Males in Math	6	4	2
	Males in Science	8	6	2
	Females in Math	32	22	22
	Females in Science	41	24	24
	Totals	87	56	50
1992	Males in Math	18	11	11
	Males in Science	12	7	4
	Females in Math	40	25	22
	Females in Science	38	16	13
	Totals	108	59	50
1993	Males in Math	21	16	8
	Males in Science	14	10	5
	Females in Math	41	25	25
	Females in Science	39	10	12
	Totals	115	61	50

Student data collected during each of the three years of SCOPE indicated that students reflected academic achievement in mathematics and science, the number of students accessing advanced mathematics and science courses increased, students attitudes became more positive towards advanced mathematics and science courses, students began to show serious interest in teaching mathematics and/or science, as a career and students were positively influenced by the Scope learning environment. We found a need to revise the video "mock" teaching component to give students more time to meet in a cooperative learning setting and to become acclimated to the camera and the video taping process. Scope received recognition on the State and national levels.

Purpose:

The SCOPE (Summer Camp Opportunity for Potential Educators) Program sought to address the critical shortage of minority mathematics and science teachers. The declines in the minority teaching population were most bleak in the southern regional states where minority teachers were disproportionately dismissed after desegregation; where the teacher competency testing movement began and was most prevalent; where the majority of Black children lived and where prospects for future teacher employment and population growth were most promising. There were fewer minority persons in school systems to act as role models for the minority youth of tomorrow. Many potential teachers were not aware of the financial and personal rewards of teaching as a career. These factors played a major role in bringing about the problem of a critical shortage in minority teachers.

Clark Atlanta University became keenly aware of a need to address the problem. The University saw a special need to develop an approach designed to increase the number of minority teachers and role models to prepare our minority youth for the new millennium. The majority of the workforce for the Twenty-first Century will be comprised of minorities. Highly technical skills including computer technology and telecommunications with a foundation in mathematics and science will be required. Hence, the institution decided to develop a program designed to recruit, retain and stimulate potential mathematics and science teachers at the precollege level.

We have learned that the problem truly exists at the level reflected in the original studies reviewed, prior to implementation of the program. However, programmatic assessment has proven that there is a relatively large pool of youth who would give careful consideration to teaching mathematics and/or science as a career. The implementation of SCOPE, over a three year period has shown that given the proper learning environment and necessary support systems, minority students are more apt to and often eager to access advanced mathematics and science courses. We believe, the supplemental funding to develop SCOPE into a residential program and to develop and provide scholarships for a college level degree program enabled us to enhance the approach via concentrated on-site SCOPE involvement and the provision of financial aid for interested students.

During the implementation process, CAU made the following program modifications:

Class time was extended to give students more time to meet in cooperative learning and preparations sessions for their pre and post "mock" video teaching episodes. We also found that students needed more time to get acclimated to the camera and being video taped. The course was modified to include time in their tutorial sessions for brainstorming and preparing for their presentations.

The tutorial component of the program was expanded to include the services of peer tutors for SCOPE participants, during year three. Twenty rising 12th graders and prefreshman participants of the Future Teachers of Mathematics and Science (FTMS) Network program who exhibited high scholastic achievement were selected to serve as Teaching Assistant Mentors (TAMS) for SCOPE. These peer tutors served to reinforce the skills development process. The FTMS Program is funded by the National Science Foundation's Statewide Systemic Initiative.

In order to avoid pitfalls during a replication process, we recommend the following administrative considerations:

(1) That pre and post video mock teaching episodes and cooperative learning experiences be included, as a part of the curriculum. A replicator must ensure sufficient time for implementation in the schedule. Time should be allowed for tutorial sessions, brainstorming and presentation preparation.

(2) That rising seniors (12th graders) who show high academic potential and have declared an interest in the teaching of mathematics and/or science be given the opportunity to serve as Teaching Assistant Mentors (TAMS). These students must participate in appropriate

enrichment courses in SCOPE and/or other programs at the institution. Compensation for the TAMS could include course units as part of a work study internship class, as well as a small summer stipend and housing.

(3) That the institution develop a degree program which incorporates the latest reforms and recommendations in mathematics and science teaching and is designed to bridge the participants from the pre-college experience through graduate school. The institution should seek scholarship funding in support of the students enrolled in the program.

Background and Origins:

The Precollege Summer Camp Opportunity for Potential Educators (SCOPE) was housed under the MASTER Institute for Teachers at Clark Atlanta University, directed by Dr. Bettye M. Clark. Consistent with the University's goals two, three, eleven and twelve, the MASTER Institute for Teachers was established in 1989 to help combat the problem of the underrepresentation of minority students and teachers in mathematics and science education and to provide an infrastructure for the University to become a leading institution in mathematics and science education. The Institute serves as a vital resource, research and demonstration center to meet the modern crises in mathematics, science and technology education for minorities.

The MASTER Institute for Teachers is guided by an Advisory Board of distinguished scientists, mathematicians and educators. The Institute's goals are as follows:

(1) To gather a national faculty of Associates including CAU faculty, public and private elementary school, middle school, high school, college and university teachers involved in addressing new and innovative techniques including multimedia technology in teaching and learning mathematics and science;

(2) To create model programs for the development and testing of new and innovative curriculum materials and techniques for the teaching and learning of mathematics and science that are well grounded in content, pedagogy and research;

(3) To provide preservice training and inservice teacher enhancement through staff development, seminars, conferences and summer institutes;

(4) To develop a model seamless five-year Master Teacher Training and Research Program in Mathematics and Science that awards a BS/MST degree which bridges programs in the School of Arts and Sciences and the School of Education;

(5) To establish a Resource Center which will conduct, publish and disseminate research on cognitive and affective development for effective teaching strategies and diverse learning styles in mathematics and science that enhance the learning environment for minority students;

(6) To develop plans for Early Identification and Recruitment, Scholarships and Career Awareness in the various teaching and research programs in Mathematics and Science Education and

(7) To develop a Resource Center for public school teachers and counselors designed to provide assistance and intervention programs of mutual efforts to find solutions to the problems plaguing pre-college mathematics and science Education.

The administrators, teachers, and counselors of the SCOPE participants have worked closely with the Institute to identify students who met the program criteria, to provide appropriate follow-up activities in mathematics and science and to implement the follow-up process. Positive curricula changes have been implemented, including improving and incorporating instructional technologies. The level of tutorial support has been increased for participating students.

Project Description:

The main features of SCOPE were the recruitment and retention of tenth and eleventh grade minority students as potential mathematics and science educators at the K-12 levels. This was accomplished through the provision of a series of summer educational experiences designed to motivate students to choose the teaching of science and/or mathematics as a career and a bridge which carried the students from high school through the graduate level in support of career development. These summer educational experiences were implemented through a six-week, residential summer camp. The program focused on the provision of opportunities to study and research teaching and learning styles in mathematics and science through a multi-faceted curriculum which included the following:

(1) **Superlative Academic Enrichment** - The content was taught by master teachers who remain abreast of the latest research and training in teachers education and who incorporate the latest technology in teaching and learning.

(2) **Apprentice-Mentor Small Group Exchange** - Small group interactive dialogue was formulated between exemplary teachers, mentors, students and teachers

(3) **Seminars by Nationally Noted Teachers** - Weekly seminars were conducted by nationally known teachers and researchers in teaching and

(4) **Mock Teaching** - Participants were required to prepare and present two (2), twenty-minute, videotaped lessons on a topic of their choice. These presentations which occurred during the middle and near the end of the program were critiqued by all participants and the project staff and used as a learning and motivational tool

The support system for SCOPE consisted of the following components:

Mentors - A mentor served as a friend, tutor and role model, helping the student to adjust to college life and provided academic support in courses beginning the first week of camp and continuing throughout the matriculation of participants. Mentors played a key role in the interactive dialogue between participants, mentors, counselors, advisors and program staff.

Monitors - The project director and staff served as academic and social advisors. Each participant was assigned a faculty advisor at the beginning of the program. Advisors were responsible for monitoring the student's progress and guiding the student from the beginning of the program through completion of the program. Thus, the monitors further aided the retention process.

Motivators - Motivation served as a key element in the support and retention strategy. Paid peer tutors, mentors, clinical staff, computer assisted instruction, interactive video tutorials, evening tutorials and staff conducted "rap" sessions were utilized as motivating tools. Seminars were also conducted on topics essential to the teaching and learning process (i.e. "Learning How To Learn", "Note Taking Skills", "Test Taking Skills", "Critical Thinking" "College Survival Skills", etc.).

Master Teachers - Master Teachers conducted both live and video classroom demonstrations for participant observation and discussion throughout the program. These sessions were used to expose the participants to exemplary classroom techniques and methodology.

In addition to enhancing the academic abilities, SCOPE placed emphasis on the development of positive student attitudes toward themselves as persons and as learners and enhancement of the learning environment.

SCOPE was developed based on a series of assumptions and planning strategies. The assumptions were that there was a critical need for mathematics and science education reform; a projected national shortage of a qualified science and engineering workforce; an immediate problem of acquisition, retention and maintenance of high quality faculty to teach science and mathematics courses at the pre-college levels; a critical need to increase the science and mathematics achievement levels of U.S. students, as a whole, and minority students, in particular; a need to develop mechanisms to assist students in developing a level of confidence that would encourage them to seek advanced course work in science and mathematics and a need to enhance science and mathematics resources and support systems. These assumptions laid the foundation for the SCOPE planning strategies.

Clark Atlanta University developed a plan for a program designed to address all of the aforementioned assumptions. The institution believed that with the provision of the appropriate curriculum, enrichment and cultural experiences, motivational techniques, resources and support systems we would be able to develop a cadre of mathematics and science teachers for the pre-college grade levels, increase the number of minority students who seek mathematics and/or science careers and effect the reform mathematics and science instruction in the participating schools. The plan required reaching the potential educator at the pre-college level and providing mechanisms to carry him or her through completion of a graduate program in science and/or mathematics education.

SCOPE was an outgrowth of several meetings and conferences with local school systems and the State of Georgia Department of Education. Partnerships with these entities and Clark Atlanta University were formed to develop a task force to address the local and national need for increasing the pool of talented minority students interested in pursuing a teaching career in mathematics or science. The project accomplished this goal by establishing a six-week,

residential summer camp which provided an intensive program of instruction, advising, mentoring and career awareness. The project served as a pilot study to determine what experiences and activities can motivate students to continue the study of mathematics and science and to further stimulate interest in the teaching of these disciplines.

Student Placement - Participants were given a pre and post test in Mathematics, English and Survey of Study Skills Habits. (See Appendices for evaluation of test data.) Students were placed in a Section I (more advanced) or Section II (less advanced) class schedule based primarily on their mathematics pre-test placement scores. The criteria for placement in Section I or Section II is outlined below:

All students were given the MAPS Algebra I and Intermediate Algebra standardized test. Students who scored 70% or better on both tests were placed in Section I. All others were placed in Section II. Other information for placement was taken under consideration for borderline cases or extenuating circumstances such as PSAT or SAT scores, grades in mathematics courses and recommendations from teachers. Students who received perfect scores or at least 90% on both tests were given a third test, the MAPS Functions and Graphs, which was used to determine, if the student was ready for Trigonometry and possibly Calculus. If the tests results indicate a readiness, the student(s) were permitted to audit a pre-freshman Trigonometry course, at no cost to the program.

Mathematics Content Enrichment - NCTM's Addenda Series guided the curriculum and recommendations with emphasis on real life applications and connections between other branches of mathematics. Topics in Algebra, Geometry, Probability and Statistics and Consumer Mathematics were taught throughout the courses.

Science Content Enrichment - The science courses were designed with a required laboratory. The curriculum in the science courses related science, technology and societal issues as part of the content. Topics in Earth Science, Chemistry, Physical Science and Physics were introduced to the students with relevant applications.

Communications Skills - This course was designed to explore links across content areas with a focus on effective writing, speaking, test taking and study skills. Emphasis was placed on common English usage, technical writing and critical thinking skills. Activities were designed to give students the opportunity to share writing samples and provide feedback to each other.

Technology in Learning - This course provided students with the opportunity to use computers and interactive video technology to reinforce content linkages. Students also used computers to develop word processing, desk-top publishing and technical writing skills.

Teaching Strategies - This course appeared to be most exciting to the students. The course provided the participants the opportunity to learn and be creative in their development and design of a teaching unit. This course was designed to introduce students to various teaching and learning styles and to stimulate the interest in teaching at an early age. Each student was required to develop a pre and post video "mock" teaching episode on a mathematics or a science content at a grade level of their choice. Their peers role played as students in the grade level chosen. Peers and teachers reviewed and critiqued the video presentation. Project staff also reviewed the tapes and offered feedback to the students. An edited video tape segment of selected participants' pre-post "mock" teaching episode was developed and disseminated.

Problem Solving and Tutorials - This activity helped students to keep up in their studies and provided extra class time to work in cooperative teams and to go to the laboratory or to teachers and/or mentors for extra help, if needed.

Seminars and Field Trips - Seminars were conducted on a weekly basis by noted mathematicians, educators, scientists and practicing business and industry professionals. The students participated in field trips designed to reinforce learning and skills development on a weekly basis. (See Appendices for a list of seminars and speakers and a schedule of field trips.)

The typical **Weekly Schedules** of Section I and Section II SCOPE Participants were as follows:

SECTION I

Course	Time	Room No.	Days	Instructor
Math	9:00 - 9:55	MD121	M - F	Bolar
Science	10:00 - 10:55	MD143	M - F	George-Taylor
Comp. Lab	11:00 - 11:55	IBM Lab	M - F	Khalif
Lunch	12:00 - 1:00	Thayer Hall		
English	1:00 - 2:00	MD121	M - F	Houston
Sci. Lab	2:00 - 4:00	MD304	TU	George-Taylor
Teaching Strategies	2:00 - 4:00	MD121	M-W-F	Howard/Johnson
Tutorials	2:00 - 4:00	MD121	TH	Staff/Mentors
Mentoring & Ind. Study	6:00 - 7:00 8:00 - 10:00	MD125	TBA	Mentors

SECTION II

Course	Time	Room No.	Days	Instructor
Science	9:00 - 9:55	MD123	M - F	George-Taylor
Math	10:00 - 10:55	MD123	M - F	Bolar
English	11:00 - 11:55	MD123	M - F	Houston
Lunch	12:00 - 1:00	Thayer Hall		
Comp. Lab	1:00 - 1:55	IBM Lab	M - F	Khalif
Sci. Lab	2:00 - 4:00	MD304	TH	George-Taylor
Teaching Strategies	2:00 - 4:00	MD123	M-W-F	Howard/Johnson
Tutorials	2:00 - 4:00	MD123	TU	Staff/Mentors
Mentoring & Ind. Study	6:00 - 7:00 8:00 - 10:00	MD125	TBA	

(See Appendices for the 1991, 1992 and 1993 Section I and Section II schedules.)

Evaluation/Project Results:

The evaluation design of the SCOPE Program, was adopted from the "Bridge Program Evaluation Design", by Gary House and Thomas Goebel, July 1987. The design intended to achieve broadly stated goals:

(1) Increase the number of minority students who are prepared and motivated to pursue careers in mathematics and science teaching;

(2) Increase the number of minority students who enroll in advanced mathematics and science courses and

(3) Support mathematics and science instruction in participating schools and increase interest in teaching mathematics and science.

The evaluation design was constructed around four (4) goal categories (bold) and corresponding goal subcategories (underlined), as stated in the original proposal are described below:

1.0 Academic Goals

1.1 Academic Achievement: The SCOPE Program intends to enhance the academic achievement of participating students in mathematics, science, study skills, critical thinking and language.

1.2 Academic Path: The SCOPE Program intends to influence participating students to successfully complete college preparatory and advanced credit courses in high school mathematics and science and to engage in careers related to mathematics, science and technology.

1.3 Academic Aptitude: The SCOPE Program intends to enhance the performance of participating students on tests of academic aptitude as vehicles by which students may obtain access to appropriate post-secondary educational programs and careers.

2.0 Affective Goal

2.1 Attitudes: The SCOPE Program intends to engender positive student attitudes toward themselves as persons and learners, their high schools and the SCOPE Program and its components.

3.0 Career Development Goal

3.1 Career Maturity: The SCOPE Program intends to foster mature attitudes toward issues related to career decision-making in participating students.

4.0 Learning Environment Goals

4.1 High School Environment: The SCOPE Program intends to enhance the learning of participating students by positively influencing curricula and teacher development, improving instructional technologies and increasing student contacts with tutors and subject matter consultants.

4.2 CAU Environment: The SCOPE Program intends to enhance the educational experiences o participating students through the extensive involvement of the CAU faculty.

The design was predicated upon two categories of decision-making purposes: formative and summative. Formative decisions identified needs, linked program strategies to these needs, maintained congruencies between intended and implemented strategies and monitored

intermediate outcomes so that extant strategies could be validated or improved. Summative decisions pertained to the ultimate internal and external validity of the SCOPE Program. The fundamental internal validity question was "What outcomes are attributable to the program?". The basic external validity question was "Would the program produce similar results, if repeated locally or implemented elsewhere?" Formative decisions occurred, therefore, as long as the program was perceived to be capable and worthy of improvement. Summative decisions occurred, when the program was perceived to be relatively stable and under consideration for repetition or replication. Formative and summative decisions were made by a variety of stake holders including the Director, CAU administrators, school district officials, program developers, and funding agents.

The specific **Intended Outcomes** of the SCOPE Program were as follows:

1. Increased and better prepared pool of minority teachers and increased access of students in mathematics and science careers to include teaching of mathematics and science

2. Increased enrollment of minority and female students in high school advanced mathematics and science courses.

The SCOPE assessment and evaluation scheme included ways to obtain the data needed to examine the program from qualitative and quantitative perspectives and to assess the impact of the program with regards to the broad goals stated above. Following is a discussion of methods used to obtain evaluative data:

1.0 Academic Goals (Academic Achievement, Academic Path, Academic Aptitude) - A battery of tests and other measures were used to obtain data on the academic achievement, academic path and academic aptitude of SCOPE participants. The data sources to determine the enhancement of academic achievement and aptitude and the influence on the academic path of SCOPE participants included: pre/post tests scores, high school transcripts, SCOPE teacher evaluation of students and follow-up survey to the participants. Change in academic achievement and aptitude and influence on academic path was assessed by descriptive, comparative and diagnostic data from pre/test data, high school GPA, SCOPE teacher evaluation, student evaluations and follow-up student surveys. (See Appendices for analysis of test data.)

Follow-up and Expected Results:

Academic Year Follow-up of Scope Participants - The academic year follow-up was crucial to determine the change in achievement, enrollment in advanced mathematics and science courses and the impact on minority recruitment in teaching. A student survey, a teacher rating form and a counselor rating form was mailed to each of the participants and their mathematics and science teachers and counselors. The Follow-up study was conducted at the end of the first semester following SCOPE participation. (See Appendices for a copy of each form and an analysis of related data.)

Analysis of Academic Goal Data - The pre/post test data clearly indicated that there was an increase in academic achievement over the six-week period for the majority of the SCOPE participants. An increase in post test scores was particularly noted each of the three years

with students that showed the greatest deficiencies. Teacher evaluation of each student's progress was consistent with the post test data collection. The follow-up survey of the first year participants indicated that 92% of Scope students enrolled in the next advanced (non-required) mathematics course and 72% in science courses, during the following academic year. The follow-up survey for the second year indicated that 95% of SCOPE students enrolled in the next advanced (non-required) mathematics course and 100% in science courses, during the following academic year.

2.0 Affective Goals -The SCOPE Program intends to engender positive student attitudes toward themselves as persons and as learners. The sources used to collect the data were student applications, student evaluations and self reports and follow-up surveys.

Analysis of Affective Goals - The data indicated that student attitudes showed a change toward learning mathematics and science, after the SCOPE experience. Students indicated the experience helped them to be less fearful of advanced courses in these fields. Teacher evaluations supported these findings. (See Appendices)

3.0 Career Development Goal - The SCOPE Program intends to foster mature attitudes toward issues related to career decisions. Students were given a career inventory test to ascertain their career interest. This data was compared to data on the student application, self report and follow-up survey.

Analysis of Career Development Goal - The data collected from the career inventory contain a variation of career interest. The reliability of this data may need to be further studied, since the students are so young. Students indicated, after their experience, that many of them were seriously considering teaching as a career.

4.0 Learning Environment Goal - The SCOPE Program intends to enhance the learning of participating students by positively influencing curricula and teacher development, improving learning habits and styles and increasing student contacts with tutors and subject matter consultants. The learning environment goal was assessed by a rating form mailed to counselors and teachers of SCOPE participants and the evaluation of the SCOPE staff. Participants were also given a Survey of Study Habits Inventory as a pre test at the beginning of the SCOPE Program, each year. The pre-test scores interpretation of the Survey of Study Habits and Attitudes assessed the participants' perception of their learning environment from the various schools they attended, prior to their participation in SCOPE. (See Appendices.)

Analysis of Learning Environment Goal - A follow-up rating form was mailed to teachers and counselors of participants to determine the influence of the program on the students' learning habits. Telephone interviews were conducted to those teachers and counselors who did not return the forms. The rating form was mailed in a self addressed, stamped envelop for convenience and maximum return. Based on the data received from the rating forms, the experience of SCOPE positively influenced student contacts with tutors and teachers. The data also indicated that students' attitudes toward learning and study habits were greatly

improved. Staff evaluations were conducted by the students to determine the effectiveness of the CAU SCOPE environment. The students' evaluations indicated that their perception of SCOPE experiences had a positive effect on their learning and desire to enter the field of mathematics and/or science teaching.

Evaluation Summary

A total of one hundred fifty (150) minority, precollege students have participated in SCOPE over the three year period. Most of these students were motivated to choose the teaching of mathematics and science. Many indicated that their academic experience and especially the video mock teaching episodes was the most rewarding and helped them to consider teaching as a career. The academic follow-up surveys and interviews with SCOPE participants and their teachers indicated that many students enrolled in advanced mathematics and science courses upon returning to their respective schools. SCOPE was designed around a series of innovative and nurturing components and activities that proved to be valuable for encouraging and motivating minority students to consider careers in teaching mathematics and science. These components included mentors, African-American role models in teaching, businesses and industry. Special seminars were conducted each week by professionals from business and industry that connected the mathematics and science taught in class to real-life contexts. Students were required to keep journals of these seminars. At the end of the project, participants post test data showed an increase in achievement in mathematics and science across the board. The post test data in English did not reveal an increase in improvement for all students. Many factors may have contributed to these results. The project staff realizes that more emphasis was put on mathematics and science achievement, which may have accounted for the differences in performance in these areas.

To determine the attainment of objective three (to increase the access of minority students in advanced mathematics and science courses) a follow up was developed and mailed to all participants, their teachers and counselors. The results of the survey sent to participants and their teachers and counselors (see appendix) indicated that all the participants who responded to the survey had enrolled in advanced mathematics and science courses and were showing an improvement in achievement in these courses. The teachers' and counselors' responses indicated that many of the participants had a renewed attitude toward learning and better study habits. The rising 11th graders in the 1991 SCOPE program are the only group that would have entered college by the end of the project. Telephone surveys were conducted to this group to measure the effect or results of the precollege recruitment model to determine how many of these participants had enrolled in college with majors in mathematics or science education programs with intent to become teachers. The result indicated that of the thirty students we were able to reach, 100% of them had enrolled in a college or university and had chosen mathematics or science as a major. Nine of these students or 30% indicated that they enrolled in a teacher education program in mathematics or science. Five of these (16%) indicated majors in teaching at the middle school level. Two of these students received scholarships at Clark Atlanta University. Based on these results, we are convinced that this model is an effective model for recruiting minorities into teaching mathematics and science.

Plans for the Continuation/Dissemination of SCOPE:

One of the long range goals of Clark Atlanta University (CAU) is to create a first class teacher education program in science and mathematics. This interest is driven by the fact that the decline in minority teachers is occurring, while the population of minority students is increasing. CAU is keenly aware of the need for minority teachers for students in general, but particularly for minority students. Therefore, Clark Atlanta University is committed to continued implementation of the SCOPE Program, as one of its strategies for addressing the critical need for minority teachers, especially in the mathematics and science disciplines.

Feedback from the many stakeholders (i.e. participating students, parents, school districts, University faculty and administrators, etc.) reflected a definite need for the program. The data reflected high levels of attainment of the program goals and objectives. Hence, we firmly believe, the continuation of the SCOPE Program will result in an increased and better prepared pool of minority mathematics and science teachers and an increased enrollment of minority and female students in high school mathematics and science courses and will seek additional public and private funding for programmatic support.

The evaluation process was carefully designed to provide both formative and summative data on all goals, objectives and components of the SCOPE Program. The evaluation process served as a means for ensuring the attainment of goals and objectives and programmatic enhancement. Therefore, we will continue to conduct all aspects of the evaluation process, according to the design, throughout program implementation. Data sources and collection schedules will remain the same.

The SCOPE Program was designed to address the problem of the diminishing supply of minority teachers, particularly teachers of science and mathematics. The project focused on participants from across the nation, including students from both urban and rural areas. Over the three year implementation period, SCOPE has received national recognition and is included in Governor Zell Miller's Georgia 2000 Resource Manual of Exemplary Projects. SCOPE has the potential for serving as a prototype for other states interested in increasing the supply of minority teachers of science and mathematics. To facilitate the process of transferability of the program, the program staff will make presentations at professional meetings such as the National Science Teachers Association and the National Council of Teachers of Mathematics. In addition, articles will be written for publication in the appropriate professional journals.

Summary and Conclusions:

In 1990, Clark Atlanta University was funded by the Department of Education through Fund for the Improvement of Post Secondary Education (FIPSE) to develop and implement the Summer Camp Opportunity for Potential Educators (SCOPE). The program sought to increase the pool of minority teachers in mathematics and science and to stimulate the interest of minority students in teaching mathematics and science. SCOPE was funded as a six-week, non-residential summer program for highly motivated, pre-college, minority youth who expressed an interest in selecting the teaching of mathematics or science as a career. CAU

placed the program under the MASTER Institute for Teachers, which is housed in the School of Education and serves as an umbrella for the University's mathematics and science initiatives. During the initial year of operation, CAU sought and acquired supplementary funds which enabled SCOPE to become a residential program.

SCOPE featured classroom and laboratory instruction, research, skills development and enrichment. The program focused on the study of teaching and learning styles, hands-on experiences, small group cooperative learning, critical skills development and the integration of technology in classroom teaching and the learning process. The curriculum included mathematics content enrichment, science content enrichment, communication skills, technology in learning, teaching strategies and problem solving. Tutorials, field trips, social and cultural activities and exposure to master teachers were an integral part of the program. Advising, mentoring, motivating and monitoring were major components of the programmatic support systems.

Based on the data collected, we make the following conclusions:

1. The SCOPE Model developed at CAU for building a pool of minority mathematics and science teachers is effective.

2. There is a pool of minority students who are interested in pursuing mathematics and science careers and who will choose careers in mathematics and science, if their skills are developed and they are advised, motivated and monitored.

3. If female and minority students are given the opportunity to develop their skills and participate in enrichment activities, they will access advanced mathematics and science courses.

4. The integration of technology into the mathematics and science curriculum proves to be an effective teaching tool.

5. The SCOPE experience had a positive effect on the participants' learning and desire to enter the field of mathematics and or science teaching.

6. The SCOPE experience had a positive effect on the participants' learning habits and styles.

7. SCOPE is a program which should be replicated as a recruitment model to increase the pool of minority students who choose careers in mathematics and science.

LIST OF APPENDICES

- APPENDIX A — FIPSE ISSUES STATEMENT
- APPENDIX B — APPLICATION/ACCEPTANCE PACKET
- APPENDIX C — SCOPE SCHEDULES
- APPENDIX D — SAMPLE SCOPE COURSE SYLLABI
- APPENDIX E — ANALYSIS OF PRE/POST TESTS
- APPENDIX F — SCOPE FORMS
- APPENDIX G — SCOPE FOLLOW-UP SURVEY PACKET
- APPENDIX H — SCOPE SEMINARS AND FIELD TRIPS
- APPENDIX I — ACADEMIC FOLLOW-UP
  - STUDENT LETTERS
  - TEACHER/ADMINISTRATOR LETTERS
  - PARENT LETTERS
- APPENDIX J — SCOPE NEWSLETTER
- APPENDIX K — NEWS RELEASES/ARTICLES

APPENDIX A

FIPSE ISSUES STATEMENT

FIPSE Issues and Comments

The FIPSE Education Program and Grants staff have been helpful in providing guidance and direction. We were, especially, pleased to have Dr. Lewis Greenstein and Dr. Joan Straumanis visit the site, during the 1991 and 1992 SCOPE sessions. They observed classes, met with students, staff, and administrators and provided technical assistance and support. The on-site visits by representatives of the funding agency helped the grantee to ensure that it was properly interpreting the programmatic guidelines and that it was accomplishing its goals as interpreted by the agency. The annual meeting of Principal Investigators sponsored by FIPSE was helpful in that it provided an excellent forum for learning and sharing.

It is crucial that we build the pool of minority mathematics and science teachers through the implementation of programs designed to stimulate and motivate minority youth to choose teaching in these disciplines as a career. Well trained teachers are needed to prepare students at the precollege level. Therefore, we believe, FIPSE should give careful consideration to funding the following types of proposals.

- Proposals that are designed to offer precollege residential programs to cultivate, nurture and support minority potential teachers of science and mathematics;

- Proposals that are designed to cultivate, nurture and support minority students in the development of careers in mathematics and science and

- Proposals that provide inservice training including curriculum development, analytical problem solving, manipulative training, laboratory techniques, cooperative learning, environmental science and technology incorporation and utilization for precollege teachers of mathematics and science.

Clark Atlanta University was funded to involve one hundred fifty (150) minority students over the duration of the grant. This arrangement enable the MASTER Institute for Teachers to expose a larger number of students to classroom, laboratory, research and enrichment activities designed to stimulate the students' interest in choosing the teaching of mathematics and/or science as a career. We believe, consideration should also be given to the funding of programs which will allow the grantee to carry the participants through a multi-year cycle.

It has been a privilege for CAU to have the opportunity to implement the SCOPE Program. FIPSE funds made it possible for the University to identify a new pool of potential minority mathematics and science educators and to provide experiences which have proven to strengthen these students' interest level and probability of becoming teachers of mathematics and/or science. We look forward to the possibility of future funding of proposed CAU activities by the U.S. Department of Education through FIPSE.

APPENDIX B

APPLICATION/ACCEPTANCE PACKET

- SCOPE Announcement
- Principal/Counselor Letter
- Student Recommendation Form
- Acceptance Letter
- Acceptance/Information Form
- Items List
- Parents/Guardians Work/Emergency Information Form
- Student Behavioral Contract

CLARK ATLANTA UNIVERSITY

ANNOUNCES

THE 1993 SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE): A MINORITY RECRUITMENT AND ENRICHMENT PROGRAM FOR FUTURE TEACHERS OF MATH AND SCIENCE (RISING 10th AND 11th GRADERS)

A SIX-WEEK RESIDENTIAL SUMMER CAMP
JUNE 13- JULY 23, 1993
(FREE TUITION, ROOM AND BOARD)

Eligible Applicants (Rising 10th and 11th graders)

- Students who will be 10th or 11th graders in the 1993-1994 school year
- Students with a minimum grade point average of 3.0 on a 4.0 scale
- Students who are interested in teaching careers in mathematics and science

The Program

The Summer Camp will feature instruction in the following academic areas:

Mathematics - Laboratory Science - Communication Skills
Computer Science - Problem Solving - Mock Teaching
Professional Courses, and Field Trips
Special seminars with scientists, mathematicians,
engineers, and math and science educators

Application should be submitted to:

Dr. Bettye M. Clark, Director
MASTER Institute for Teachers
Clark Atlanta University
P. O. Box 171
Atlanta, GA 30314
(404) 880-8250

APPLICATION DEADLINE: April 15, 1993

This program is made possible by the Fund for the Improvement of Post Secondary Education (FIPSE), Exxon and General Mills.

CLARK ATLANTA UNIVERSITY

January 29, 1993

Dear Principal/Counselor:

Clark Atlanta University is pleased to announce three six-week residential precollege summer enrichment programs in mathematics and science education for minorities. Each of these programs addresses the under-representation of minorities in the study of mathematics and science.

Summer Camp Opportunity for Potential Educators (SCOPE) -- Rising 10th and 11th graders

Future Teachers of Math and Science (FTMS) -- Rising 12th graders from Metro Atlanta Schools

Future Teachers of Math and Science (FTMS) -- Pre-Freshmen entering Clark Atlanta University fall of 1993

Counselors and mathematics and science chairs are requested to nominate and assist the appropriate grade level students in completing the application process by April 15, 1993. The appropriate counselors would be counselors of present 9th, 10th, 11th and 12th graders.

The following packets are enclosed for distribution and posting:

1) Announcements for
   a) SCOPE (rising 10th and 11th graders)
   b) FTMS (rising 12th graders)
   c) FTMS Pre-Freshman (12 graders)
2) Application for each program
3) Six Recommendation forms - 2 per program

Please feel free to make additional copies of all forms if needed. For more information, call Mrs. Durrah, Administrative Assistant, at (404) 880-8250.

Thank you for your support and cooperation.

Sincerely,

Bettye M. Clark

Bettye M. Clark, Director
MASTER Institute for Teachers

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Enclosures

CLARK ATLANTA UNIVERSITY

APPLICATION FOR THE

1993 SUMMER ENRICHMENT RESIDENTIAL PROGRAMS FOR MINORITIES IN MATHEMATICS AND SCIENCE EDUCATION

Please check the specific program to which you are applying

____SCOPE ____PTMS RISING SENIORS ____PTMS PRE FRESHMEN

PLEASE PRINT OR TYPE ALL INFORMATION (USE BLACK INK ONLY)

1. Name _____ Male [ ]Female [ ]
Last First MI

2. Birthdate _____ Citizenship _____ S. S. #____-___-____

3. Ethnic Origin: __ African American ___ Hispanic ___ Native American
__ Asian American ___ Other (Please specify) _____

4. Permanent Home Address

_____
(Number/Street)

_____
(City) (State and Zip Code) (Area Code/Telephone No.)

5. Parent and/or Guardian _____
(Name)

Address _____
(Number/Street) (City) (State/Zip Code)

_____
(Area Code/Telephone No.)

Father's Occupation _____ Mother's Occupation_____

6. Name and Address of High School

_____

_____
(Number/Street) (City) (State/Zip Code) (Telephone No.)

7. Classification (1993-94): ___ 10th ___ 11th ___ 12th ___ Pre Freshman

8. SAT/ACT scores: ACT: ____ SAT: Verbal ____ Math ____ H.S. GPA ____

9. Name of Counselor _____ Telephone No. _____

PLEASE COMPLETE REVERSE SIDE ------->

BEST COPY AVAILABLE

RECOMMENDATION FOR SUMMER ENRICHMENT RESIDENTIAL PROGRAMS FOR MINORITIES IN MATHEMATICS AND SCIENCE EDUCATION

Indicate program to which you are applying

____SCOPE ____PTMS RISING SENIORS ____PTMS PRE-FRESHMEN

_____

NAME (print) Last First Middle

I agree that the recommendation I am requesting shall be held in confidence by officials of Clark Atlanta University; and I waive any rights I may have to examine it.

_____

Signature of Applicant

PART B: TO BE COMPLETED BY RECOMMENDER

How long have you known the applicant? _____

In what capacity? _____

SUMMARY EVALUATION

Outstanding = 5 Excellent = 4 Very Good = 3 Good = 2 Fair = 1

Leadership Potential _____
Reliability _____
Intellectual Potential _____
Ability to Work with Others _____
Creativity/Imagination _____
Maturity _____
Self-confidence _____
Communication Skills: Oral _____
Communication Skills: Written _____
Ability to analyze a problem and formulate a solution _____
Motivation for career in math/science _____
Work Habits _____

_____

Additional comments (Attach a separate page if necessary)

_____

Signature Please Print Name Date

_____

Position School Telephone No.

CLARK ATLANTA UNIVERSITY

May 11, 1993

Congratulations! You have been selected to participate in the 1993 Summer Camp Opportunity for Potential Educators (SCOPE) Program. The program, funded by the Fund for the Improvement of Post Secondary Education (FIPSE), is scheduled for six weeks beginning June 13, 1993 and ending July 23, 1993.

You are expected to spend the full six weeks on the campus, including living in the dormitory. Because the program includes morning, afternoon and evening sessions, you will not be able to work or participate in any other scheduled programs on or away from the campus during the six-week duration of the program. You must plan to remain throughout the entire program. As a summer resident student, you are expected to abide by all rules and regulations of the University and the program. We have planned a very full and stimulating program; thus, we are confident that you will find your experiences both beneficial and rewarding.

Registration for the program will take place on Sunday, June 13, 1993 from 12 Noon to 4:00 P.M. An orientation meeting is scheduled from 1:00 P.M. - 2:00 P.M. in Room 201 of McPheeter-Dennis Hall. You are encouraged to bring your parents or guardians to this meeting.

Your signature and the signature of your parent/guardian on the enclosed forms constitute your full-time commitment to the program for the designated six weeks. Please sign and have your parent or guardian sign the enclosed documents and return to me by May 24, 1993:

1) Acceptance/Information Form
2) Parent(s)/Guardian(s) Work & Emergency Information Form
3) Behavioral Contract Form
4) Report of Medical History Form (please have notarized)

If you have a medical insurance card, bring it with you. In the meantime, please feel free to contact me at (404) 880-8250 if you need clarification on any matter related to the program.

Sincerely,

Bettye M. Clark

Bettye M. Clark, Director
MASTER Institute for Teachers

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Enclosures

BMC/mvd

JAMES P. BRAWLEY DRIVE AT FAIR STREET, SW • ATLANTA, GEORGIA 30314 • (404) 880-8000

Formed in 1988 by the consolidation of Atlanta University, 1865, and Clark College, 1869

CLARK ATLANTA UNIVERSITY

SUMMER ENRICHMENT PROGRAMS SCOPE AND FTMS
CHECK THE PROGRAM TO WHICH YOU ARE ACCEPTED
__SCOPE __FTMS (12TH) __FTMS PRE FRESHMAN

SUMMER PROGRAM 93 JUNE 13 - JULY 23, 1993

ACCEPTANCE/INFORMATION FORM

Please complete this form and sign in the space provided for student's signature and have your parent or guardian sign in the space provided for parent/guardian. PLEASE RETURN BY: _____, 1993.

___ *I will* ____ *I will not be participating in the SCOPE Summer Program.*

NAME:_____
(Print or Type Using Black Ink)

*I will arrive on:*_____ _____ a.m./p.m.
Date *Time* *(circle one)*

Please indicate below any medical problems of which we should be aware.

_____

Physician's name and telephone number:

_____ ( )_____

*If you are covered by any health insurance plan indicate name of insurance plan and policy number:*_____

Indicate in the space below any special diet requirements.

_____

_____ _____
Signature of Parent or Guardian *Date*

_____ _____
Home Telephone (Area Code) *Business Telephone (Area Code)*

_____
Student's Signature

(PLEASE SEE REVERSE SIDE OF THIS FORM FOR ADDITIONAL IMPORTANT INFORMATION)

Items You Need To Bring With You

1. Bed linen (top and bottom sheet for single or twin bed)
2. Pillow (pillow case included)
3. Towels (wash cloth and bath towel) and personal toiletries
4. Summer clothes (no halter tops or short shorts)
5. Personal Medication
6. Calculator and other personal supplies
7. Alarm Clock

Optional Items

1. Television and/or radio
2. Fan

CLARK ATLANTA UNIVERSITY

SCOPE 1993

PARENT(S)/GUARDIAN(S) WORK & EMERGENCY INFORMATION

Student's Name _____ Date _____

Name_____ Relation _____

Work/Day Number ( )_____ Evening Number ( )_____

Name_____ Relation _____

Work/Day Number ( )_____ Evening Number ( )_____

Emergency Contact _____ Relation _____

Address _____

_____

Work/Day Number ( )_____ Evening Number ( )_____

*If any changes should occur in the above information, Ms. Hicks or Dr. Norman is to be notified immediately at (404) 880-8250.

SCOPE PROGRAM

BEHAVIORAL CONTRACT

I, _____ do understand that any violation of the listed standards will result in appropriate disciplinary action including but not limited to my being denied a place in the SCOPE Program next summer, and not receiving a certificate at the end of this year's 1993 program.

(1) I will attend classes.

(2) I will be on time to all my classes and functions.

(3) I will give no teacher or staff member any reason to become annoyed about my classroom behavior.

(4) I will do my best work at all times.

(5) I will take seriously the objectives of the SCOPE Program.

(6) I will make those people that recommended me proud.

(7) I will leave campus only upon being granted permission.

Participant _____ Date _____

Parent/Guardian _____ Date _____

APPENDIX C

SCOPE SCHEDULES

- 1991 Program Schedule
- 1992 Program Schedule
- 1993 Program Schedule
- 1993 Last Week Schedule
- 1993 SCOPE Orientation
- 1993 Mentor Orientation
- 1993 Mentor's Office Schedule
- 1993 Mentor's Huddle Groups
- 1993 SCOPE Residence Counselors

SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)
1991 SUMMER PROGRAM

SCHEDULE

Sunday, June 16, 1991

12:00 - 2:50 P.M.	Registration and Reception
	Room assignments Males are housed in Brawley Hall Females are housed in Holmes Hall
3:00 - 3:50 P.M.	Program Orientation Room 209 McPheeters-Dennis Hall
4:00 P.M.	Institutional Orientation Davage Auditorium/Haven-Warren Hall
6:00 P.M.	Dinner Crogman Dining Room - Thayer Hall

Monday, June 17, 1991 **PLACEMENT TESTING**

Tuesday, June 18, 1991 **CLASSES BEGIN**

Monday, June 17, 1991

TESTING SCHEDULE

8:30 a.m. - 10:30 a.m.	Elementary & Intermediate Algebra
10:30 a.m. - 12:00 p.m.	Campus Tour and Picture ID

BREAK FOR LUNCH

1:00 p.m. - 2:30 p.m.	English Diagnostic
2:45 p.m. - 3:15 p.m.	Survey of Study Habits

BREAK FOR DINNER

N O T E:

(1) Classes will begin on Tuesday at 9:00 a.m. per your schedule.

(2) All students are expected to be in class everyday and ON TIME!

SCOPE SUMMER PROGRAM - 1991

JUNE 16 - JULY 26, 1991

SCHEDULE - SECTION I

COURSE	TIME	ROOM NO.	DAY OF WEEK	INSTRUCTOR
MATH	9:00 - 9:55	MD121	M-T-W-TH-F	BOLAR
SCIENCE	10:00 -10:55	MD143	M-T-W-TH-F	GEORGE-TAYLOR
COMPUTER LAB	11:00 -11:55	IBM LAB (CLEMENT HALL)	M-T-W-TH-F	KHALIF
LUNCH	**12:00 - 1:00**		**THAYER HALL**	
ENGLISH	1:00 - 1:55	MD121	M-T-W-TH-F	HOUSTON
SCIENCE LAB	2:00 - 4:00	MD304	T (only)	GEORGE-TAYLOR
TEACHING STRATEGIES	2:00 - 4:00	MD121	M-W-F	HOWARD/JOHNSON
TUTORIALS	2:00 - 4:00	MD121	TH (only)	STAFF
MENTORING AND INDEPENDENT STUDY	6:00 - 7:00	MD125	TBA	MENTORS

SCOPE SUMMER PROGRAM - 1991

JUNE 16 - JULY 26, 1991

SCHEDULE - SECTION II

COURSE	TIME	ROOM NO.	DAY OF WEEK	INSTRUCTOR
SCIENCE	9:00 - 9:55	MD123	M-T-W-TH-F	GEORGE-TAYLOR
MATH	10:00 -10:55	MD123	M-T-W-TH-F	BOLAR
ENGLISH	11:00 -11:55	MD123	M-T-W-TH-F	HOUSTON
LUNCH	**12:00 - 1:00**		**THAYER HALL**	
COMPUTER LAB	1:00 - 1:55	IBM LAB (CLEMENT HALL)	M-T-W-TH-F	KHALIF
SCIENCE LAB	2:00 - 4:00	MD304	TH (only)	GEORGE-TAYLOR
TEACHING STRATEGIES	2:00 - 4:00	MD123	M-W-F	HOWARD/JOHNSON
TUTORIALS	2:00 - 4:00	MD123	T (only)	STAFF
MENTORING AND INDEPENDENT STUDY	6:00 - 7:00	MD123	TBA	MENTORS

6/24/92

SCOPE SUMMER PROGRAM - 1992

JUNE 14 - JULY 25, 1992

SCHEDULE - SECTION I

COURSE	TIME	ROOM NO.	DAY OF WEEK	INSTRUCTOR
COMPUTER LAB	9:00 - 9:55	IBM LAB (CLEMENT HALL)	M-T-W-TH-F	GARY
MATH	10:00 -10:55	MD121	M-T-W-TH-F	FLOURNOY
SCIENCE	11:00 -11:55	MD121	M-T-W-TH-F	GEORGE-TAYLOR
LUNCH	**12:00 - 1:00**		**THAYER HALL**	
ENGLISH	1:00 - 1:55	MD123	M-T-W-TH-F	COLE
SCIENCE LAB	2:00 - 4:00	MD304	T (only)	GEORGE-TAYLOR
TEACHING STRATEGIES	2:00 - 4:00	MD125	M-W-F	JOHNSON/HICKS
TUTORIALS	2:00 - 4:00	MD125	TH (only)	MENTORS
MENTORING AND INDEPENDENT STUDY	6:00 - 7:00	TBA	TBA	MENTORS

6/24/92

SCOPE SUMMER PROGRAM - 1992

JUNE 14 - JULY 25, 1992

SCHEDULE - SECTION II

COURSE	TIME	ROOM NO.	DAY OF WEEK	INSTRUCTOR
SCIENCE	9:00 - 9:55	MD121	M-T-W-TH-F	GEORGE-TAYLOR
COMPUTER LAB	10:00 -10:55	IBM LAB (CLEMENT HALL)	M-T-W-TH-F	GARY
ENGLISH	11:00 -11:55	TA303	M-T-W-TH-F	COLE
LUNCH	**12:00 - 1:00**		**THAYER HALL**	
MATH	1:00 - 1:55	MD121	M-T-W-TH-F	HALL
SCIENCE LAB	2:00 - 4:00	MD304	TH (only)	GEORGE-TAYLOR
TEACHING STRATEGIES	2:00 - 4:00	MD123	M-W-F	JOHNSON/HICKS
TUTORIALS	2:00 - 4:00	MD123	T (only)	MENTORS
MENTORING AND INDEPENDENT STUDY	6:00 - 7:00	TBA	TBA	MENTORS

Scope final

SCOPE/FTMS '93 CALENDAR

June 13 - July 24, 1993

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
June 13 SCOPE/FTMS PROGRAM BEGINS	June 14	June 15	June 16 10:00am SPEAKER: GORDON JOYNER (MD RM 201)	June 17	June 18	June 19
June 20	June 21 4:00pm SPEAKER: DR. J. ARTHUR JONES (MD RM 201)	June 22 9:30am FIELD TRIP: SHENANDOAH ENVIRONMENTAL CENTER	June 23	June 24	June 25	June 26
June 27	June 28	June 29	June 30 4:00pm SPEAKER: DR. ERNEST WILKINS (MD RM 201)	July 1 1:30pm FIELD TRIP: FERNBANK SCIENCE CENTER	July 2	July 3
July 4	July 5 9:30am FIELD TRIP:SIX FLAGS OVER GA	July 6 4:00pm SPEAKER:DR. HOWARD ADAMS (EXHIBIT HALL-WOODRUFF)	July 7 4:00pm SPEAKER: MR. AARON HENDERSON (MD RM 201)	July 8	July 9	July 10
July 11	July 12 8:00pm THE IMPORTANCE OF MATH AND SCIENCE SYMPOSIUM MD301	July 13	July 14	July 15 4:00pm FIELD TRIP: ATL. BOTANICAL GARDEN	July 16 7:00pm SCOPE/FTMS TALENT SHOW (DAVAGE AUDITORIUM)	July 17 5:00pm PICNIC AT DR. CLARK'S HOUSE
July 18	July 19	July 20	July 21	July 22 5:00pm SCOPE/FTMS BANQUET (OMEGA HOUSE)	July 23	July 24

SCOPE/FTMS

Schedule for Week of July 19, 1993

Monday, July 19, 1993

9:00 - 4:00 Regular class schedule

Tuesday, July 20, 1993

8:00 a.m. - 2:00 p.m.	Post - testing in Haven - Warren (Davage)
2:00 p.m. - 3:30 p.m.	Class Evaluation by Students
3:30 p.m. - 4:00 p.m.	Preparing for Group Picture
4:00 p.m.	Group Picture (Harkness Hall - front steps)

Wednesday, July 21, 1993

9:00 a.m. - 4:00 a.m.	Regular Class Schedule (FINAL EXAMS)

Thursday, July 22, 1993

9:00 a.m. - 3:00 p.m.	Regular Class Schedule (FINAL EXAMS)
3:00 p.m. - 4:30 p.m.	Dressing and Preparing for Banquet
4:30 p.m.	Leave on bus for Banquet (M/D)
5:00 p.m. - 8:30 p.m.	Banquet - Omega International House

Friday, July 23, 1993

9:00 a.m. - 10:00 a.m.	Closing Session (FTMS)
10:00 a.m.	Leave for Home

SCOPE/FTMS ORIENTATION 1993

SCHEDULE

SUNDAY, JUNE 13, 1993

10:00 - 2:00	Arrival and Registration - McPheeters-Dennis
2:30 - 3:15	Program Orientation - McPheeters-Dennis - Welcome ... Dr. Bettye M. Clark, Director MASTER Institute for Teachers - Program Focus - Distribution of Information Packets - Review of Rules and Regulations - Introduction of Faculty and Staff - Questions and Answers
3:30 - 4:30	General Orientation Session for all Summer Programs Vivian W. Henderson Center
4:30 - 5:00	Settling into Dormitory
5:00 - 6:30	Dinner - Dining Hall
6:30	Tour of Campus, etc.

MONDAY, JUNE 14, 1993

7:00 - 8:00	Breakfast - Dining Hall
8:00 - 12:00	Tests - Davage Auditorium
1:00 -	Taking Pictures for ID Orientation to Campus Getting ready for classes

TUESDAY, JUNE 15, 1993

8:00	Breakfast
9:00	Classes begin (Follow Schedule)

SCOPE/FTMS ORIENTATION FOR MENTORS
AGENDA
June 11, 1993

1. Welcome and introduce everyone

2. Review of job description (attached)

3. Pass out and review Dormitory Counselor (Mentors) workshop schedule (attached)

4. Discuss taping of scenarios during Teaching Strategies sessions

5. Review First week schedule June 13, 1993
   Their role on Sunday
   Their role as pre test monitor on Monday
   Their role at seminars
   Their role as chaperons for field trips

6. Share operational hours and procedures for the gymnasium in the Henderson Center

7. Discuss planning week-end activities for students

8. Discuss distribution of books and supplies

9. Receive questions and answers

Qualifications for Mentors:

Mentors will be juniors, seniors or graduate students, preferably majoring in mathematics or science and interested in teaching, though it is not mandatory. Experience working with teens is also preferred.

Mentors' major responsibilities:

Mentors will reside in the dormitory and serve as dormitory counselor on 24 hour call to students. They will:

- be teacher assistants and tutors for assigned classes,
- monitor pre and post tests,
- report class cuts and/or poor attendance to the program director,
- supervise independent study,
- chaperon all field trips, seminars, and non-academic activities,
- video tape for the teaching strategies classes,
- help the participants plan the closing banquet,
- report to the program director or assistant any health, social or other problems needing adult attention,
- plan and supervise all social activities which include games and other activities for the July 4 picnic, and
- be assigned a special mentoring and independent study group.

6/21/93

SCOPE/FTMS 1993

MENTOR'S OFFICE Schedule

	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3	3 - 4
Monday	Eurman		Felicia		Mecca	Eurman	Eurman Felicia
Tuesday	Eurman	Jarrod	Felicia		Mecca	Keva	Keva
Wednesday	Eurman		Felicia		Mecca	Eurman	Eurman Keva
Thursday	Eurman	Jarrod	Felicia		Mecca	Felicia	Keva
Friday	Eurman		Felicia		Mecca	Eurman	Keva

Totals: Eurman - 10 Hours
Felicia - 7 Hours
Jarrod - 2 Hours
Keva - 5 Hours
Mecca - 5 Hours

SCOPE/RA REV

CLARK ATLANTA UNIVERSITY

SCOPE/FTMS

MENTOR'S HUDDLE GROUPS

Burmon's Group

Marcello Buchner (m)
Keila Butler
Andre Carter (m)
Yarnell Culler
Yhana Chavis
Crystal Causey
Bartyce Colbert
Maguene Dieudonne
Traci Rowe
Tamara Ross
Vawnetta Mathis
Antoinette Sims
Sean Tillman (m)

Meca's Group

Lamia Harris
Timothy Hill (m)
Olive Henry
Courtney Johnson
Aaron Jordan (m)
Valeria Lewis
Melia Stephens
Bridgette Thomas
Shaakira Silvera
Rashaan Washington (m)
Ayieshea Huguinea
Niakesha Huguinea
Kenton Gills (m)
(m)

Felicia's Group

Reginald Johnson
Ryan Leverson
Shalithia Martin
Lynette McGee
Rasheeda Morgan
Melissa Page
Seccheus Parker
Trese Flowers
Erica Riggins
Kim Compton
Candice Giles
Andrea Galloway
Jennifer Wilcox

Jarrod's Group

Amina Abdur-Rahan
Desia Bacon
Evorah Baerga
Kortnee Barnett
Tiffany Brown
Latasha Brownless
Alethea (Trina) Green
Tita Johnson
Tavaris Smith (m)
Demetria Alsobrooks
Candice Giles
Kaffeus Sanders (m)
Robert Wells (m)

Keva's Group

Shanita Wilkerson
Ligaya West
Tomika Byrd
Keisha Kelly
Tiryphena Glover
Ryan Lisbon (m)
Alfreda Newton
Stevon Parker (m)
Fletcher Seay (m)
Ruben Studdard (m)
Thomas Tate (m)
Chavonda Mills
Desmond Littlejohn

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Formed in 1988 by the consolidation of Atlanta University, 1865, and Clark College, 1869

THE DEPARTMENT OF RESIDENCE LIFE
CLARK ATLANTA UNIVERSITY
SUMMER 1993

ORIENTATION SCHEDULE FOR SUMMER RESIDENTIAL PROGRAM COUNSELORS
THAYER HALL, ROOM 121
SATURDAY, JUNE 12, 1993
9:00 A.M. - 4:00 P.M.

MORNING

8:00 am :	Summer Residential Program Counselors Check Into Residence Halls.
	RESIDENCE LIFE
	Ms. Rhonda Robinson
10:00 am:	Welcome and Introductions
	Staff Roles and Responsibilities.
	Residential Guidelines.
	Tour of the Facilities.
12:00 pm	Lunch On Your Own

AFTERNOON

1:00 pm	**THE DEPARTMENT OF PUBLIC SAFETY**
	Chief Dana Scott
1:30 pm	**STUDENT HEALTH SERVICES**
	Ms. Brenda Davenport
2:00 pm	**THE COUNSELING CENTER**
	Dr. Derek Scott
2:30 pm	**THE OFFICE OF STUDENT ACTIVITIES**
	Mr. Frank Robinson
3:00 pm	**QUESTIONS AND ANSWERS**
3:30 pm	**CLOSING STATEMENTS**

APPENDIX D

SAMPLE SCOPE COURSE SYLLABI

- 1992 Science
- 1992 Algebra
- 1992 Teaching Strategies
- 1993 Trigonometry
- 1993 Teaching Strategies
- 1993 English

SCIENCE

SYLLABUS

FOR

SCOPE 1992

Science Classes

Monday - Friday

9:00 - 9:55	Section II
11:00 - 11:55	Section I

Science Labs

Tuesdays	2:00 - 4:00	Section I
Thursdays	2:00 - 4:00	Section II

Office Hours

Tuesdays 4:10 - 6:10

Room 304 McPheeter Dennis

Week of 6/16 - 6/19

6/16/92

Class introduction. Poling of students to know their background in Chemistry, Biology, Physics, and Physical Science.

Note: Based on the results of the pole, I have decided to start teaching Chemistry from chapter 2 of Metclallfe, Williams, and Castka. I plan to cover five chapters in Chemistry and two chapters in Biology.

6/17 - 6/19

Matter and its changes.
Classes of matter - solids, liquids, and gases
- elements, compounds, and mixtures
Heterogeneous and homogeneous mixtures.
Symbols of elements leading to chemical formulas for compounds.
Laws of Conservation of mass and Definite Composition, along with the Equations to explain the laws.

Homework:Vocabulary at the end of Chapter 2. This will further reinforce the concepts covered in class.

Week of 6/22 - 6/26

Structure of the Atom
A literature review of the work of some of the early scientists relating to the structure of the atom. These scientists include Democritus, John Dalton, Ernest Rutherford, Antoine Lavoisier etc.
Ernest Rutherford's thin sheet of gold experiment to explain the distribution of the positive and negative charges in an atom.

The neutrality of the atom explained in view of the fact that there must be an equal number of positive and nagative charges, namely protons and electrons respectively. The existence of neutrons to account for the total mass of the atom.

Atomic number related to the number of protons.

6/26 Test on Chapters 2 & 3

Homework:Vocabulary at the end of Chapter 3. Also a report on the work of Niel Bohr, Antoine Lavoisier, Ernest Rutherford, and John Dalton.

Week of 6/29 - 7/3

6/29 - 7/1

Electron configuration of Atoms
A brief review of the periodic table. The division of elements into groups and series. An explanation of the numbers and letters in each of the boxes in the periodic table. The arrangement of elements in order of increasing atomic numbers. The naturally occuring elements from hydrogen to uranium, and the transuranium elements which are man-made.
The four quantum numbers
a. Principal quantum number,
b. Orbital quantum number,
c. Magnetic quantum number, and
d. Spin quantum number
The shells or energy levels K, L, M, N, O, P
The sub-shells or sub-energy levels s, p, d, f
s - 1 orbital
p - 3 orbitals
d - 5 orbitals
f - 7 orbitals
Each orbital having a maximum of two electrons
filling of Electrons into the orbitals leading to electron configuration.
The octet rule relating to the filling of the outermost s- and p- orbitals with eight electrons.

7/2 Correction of the first test
7/3 Holiday

Homework:Vocabulary at the end of Chapter 4. Write the electron configuration of the elements in series 2, 3, and 4

Week of 7/6 - 7/10

Structure and function of the cell
The cell - basic unit of all living organisms - plants and animals.
Differences between plants and animals cells.
The use of Light, Transmission, and Scanning Electron microscopes to observe cells.
The works of Robert Hooke and Anton van Leeuwenhoek.
The cell theory.
The three main components of the cell.

The organelles which include the Ribosomes
Endoplasmic Reticulum
Golgi Apparatus
Mitochondria
Lysosomes
Chloroplasts

The function of each organelle.

Homework:A literature review of Hooke and Leeuwenhoek.Problems under sections A and B Chapter 4.

7/8 Test on Chapter 4

Week of 7/13 - 7/17

Chemical bonds
Formation of compounds from elements via chemical bonds.
Valence electrons and chemical bonds
Different types of chemical bonds.
Oxidation and reduction - oxidation numbers.
Hybridization - carbon as an example.

Homework:Vocabulary at the end of Chapter 6. Problems under groups A and B chapter 6.

Week of 7/20 - 7/24

7/20 Test on cell structure and function and chapter 6.

7/21 - 7/23

Acid - Base Titration and pH
Molal, Molar, and Normal solutions and their differences.
Chemical equivalents of acids, bases, and salts.
pH and calculations involving pH
Indicators.
Titration with Molar solutions

Homework:Vocabulary at the end of chapter 16. Questions 1 - 4 under Group A chapter 16.

SCIENCE LAB

SYLLABUS

FOR

SCOPE 1992

6/16 & 6/18

Introduction to Laboratory Procedures.

Laboratory precautions.
Identification of lab apparatus and instruments, and their uses.

6/23 & 6/25

Evidence for a chemical change

A series of reactions indicating chemical changes effected by mixing different chemicals and adding heat. Evidences for the chemical changes via generation of heat, color changes, formation of precipitates, and production of gases.

Lab reinforces the fact that Matter can undergo chemical changes.

6/30 & 7/2

Flame Test

The heating of different netallic nitrates placed on nichrome wire to generate different colors of light.

Lab reinforces the fact that electrons of different atoms have different ground energy states. When they are heated, the electrons (atoms) are promoted to different higher energy states. When atoms return to their original energy levels, they lose the absorbed energy inform of radiated light with color characteristic of the particular atom.

7/7 & 7/9

Energy and Entropy: Phase Changes.

use of sodium thiosulfate pentahydrate crystals to explain the freezing of a liquid and melting of a solid: two of the phases of matter.

A set-up of the Acid- Rain Project using different concentrations of sulfuric acid. This project will partially explain the effect of acid-rain on the viability of plants.

7/14 & 7/16

Reaction of Ionic Species in Aqueous Solution.

This will help the students to formulate the net ionic equations for the precipitation reactions as well as learn which pairs of ions form precipitates.

Biochemistry: Preparation of a Casein Glue.

This lab will make it possible for students to predict which type of milk product will result from changing the pH. They should be able to prepare a casien glue from milk by themselves after completing the lab.

7/21 & 7/23

Titration of an acid and a base.

Lab will reinforce chapter 16.

CLARK ATLANTA UNIVERSITY

School of Education

SCOPE Program 1992

Summer Camp Opportunity
for Potential Educators Program

Sponsored by

The United States
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FIPSE Program

THE DEPARTMENT OF MATHEMATICS
OF
CLARK ATLANTA UNIVERSITY

ALGEBRA

Contents

1 Working with the Numbers of Arithmetic
1.1 Working with Whole Numbers
1.2 Working with Fractions
1.3 Working with Decimals and Percents
1.4 Switching from Word Expressions to Number Expressions
Summary
Review Exercises
Practice Test

2 Working with Real Numbers
2.1 Understanding Integers
2.2 Subtracting Integers
2.3 Multiplying and Dividing Integers
2.4 Understanding Real Numbers
2.5 Switching from Word Expressions to Real Number Expressions
Summary
Review Exercises
Practice Test

3 Working with Variable Expressions
3.1 Switching from Word Expressions to Algebraic Expressions
3.2 Combining Like Terms
3.3 Working with Symbols of Grouping
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–3

4 Solving First-Degree Equations
4.1 Solving Equations Using One Property
4.2 Solving Equations Using Several Properties
4.3 Switching from Word Statements to Equations
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–4

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5 Working with Exponents
5.1 Multiplying with Whole-Number Exponents
5.2 Dividing with Whole-Number Exponents
5.3 Working with Negative Exponents
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–5

6 Working with Polynomials
6.1 Simplifying Polynomials
6.2 Multiplying with Monomials
6.3 Multiplying Binomials
6.4 Dividing Polynomials
6.5 Switching from Word Expressions to Polynomials
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–6

7 Factoring Polynomials and Solving Quadratic Equations
7.1 Looking for Common Factors
7.2 Factoring the Difference of Two Squares
7.3 Factoring Trinomials
7.4 Using All Types of Factoring
7.5 Using Factoring to Solve Quadratic Equations
7.6 Switching from Word Statements to Quadratic Equations
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–7

8 Working with Rational Expressions
8.1 Simplifying Rational Algebraic Expressions
8.2 Multiplying and Dividing Rational Algebraic Expressions
8.3 Building Rational Algebraic Expressions
8.4 Adding and Subtracting Rational Algebraic Expressions
8.5 Working with Complex Fractions
8.6 Solving Fractional Equations
8.7 Switching from Word Statements to Fractional Equations
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–8

9 Working with Inequalities
9.1 Writing and Graphing Inequalities

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9.2 Solving Inequalities
9.3 Solving Pairs of Variable Inequalities (Optional)
9.4 Switching from Word Statements to Inequalities
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–9

10 Working with Equations in Two Variables
10.1 Switching from Word Statements to Equations Containing Two Variables
10.2 Graphing First-Degree Equations in Two Variables
10.3 Graphing Linear Equations by Other Methods
10.4 Graphing Lines Using the Slope
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–10

11 Solving Systems of Linear Equations
11.1 Solving a System of Equations by Graphing
11.2 Solving a System of Equations by Substitution
11.3 Solving a System of Equations by Elimination (or Addition)
11.4 Switching from Word Statements to Systems of Equations
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–11

12 Working with Square Roots
12.1 Working with Radical Expressions
12.2 Operating with Radical Expressions
12.3 Rationalizing Denominators
12.4 Solving More Quadratic Equations
12.5 Switching from Word Statements to Quadratic Equations
Summary
Review Exercises
Practice Test
Sharpening Your Skills after Chapters 1–12

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CLARK ATLANTA UNIVERSITY

TEACHING STRATEGIES

SYLLABUS

For SCOPE 1992

June 15, 1992 - July 24, 1992

INSTRUCTORS: MRS. WRAY AND MS. HICKS

TEACHING STRATEGIES

MEETS: MONDAY, WEDNESDAY AND FRIDAY

TIME 2:00 P.M. - 4:00 P.M.

SECTION I MS. HICKS ROOM MD 125

SECTION II MS. WRAY MD 123

OFFICE HOURS MS. HICKS

TUESDAY/THURSDAY 4:30 P.M. - 6:00 P.M.
ROOM 102 CLEMENT HALL

WEEK OF 6/15 TO 6/19

WEDNESDAY 6/17
TOPIC: OVERVIEW OF THE TEACHINGS STRATEGIES
COURSE; WHAT IS AN EFFECTIVE TEACHER?

FRIDAY 6/19
TOPIC: DISCUSSION OF TEACHING STRATEGIES:
LECTURE, DISCOVERY,INQUIRY, COOPERATIVE LEARNING AND
COMPUTER ASSISTED;
THE REFLECTIVE TEACHING MODEL

WEEK OF 6/22 - 6/26

MONDAY 6/22
TOPIC: REFLECTIVE TEACHING ROUNDS 1,2,3,4 & 5
STUDENT TEACHING ASSESSMENT GIVEN

WEDNESDAY 6/24
TOPIC: VIEW AND DISCUSS MOVIE "STAND AND DELIVER"

FRIDAY 6/26
TOPIC: WORKSHOP ON DEVELOPING AND WRITING AN LESSON PANS
HOMEWORK; WRITE LESSON PLANS FOR 1ST PEER TEACHING

WEEK OF 6/29 - 7/3

MONDAY 6/29
TOPIC: PEER TEACHING

WEDNESDAY 7/1
TOPIC: PEER TEACHING - VIDEO TAPING

FRIDAY 7/3
SCHOOL HOLIDAY

WEEK OF 7/6 - 7/10

MONDAY 7/6
TOPIC: PEER TEACHING - VIDEO TAPING

WEDNESDAY 7/8
TOPIC: PEER TEACHING - VIDEO TAPING

FRIDAY 7/10
TOPIC: PEER TEACHING
GUEST SPEAKER: DR. ROOSEVELT WEAVER, PRINCIPAL OF NASSAW SCHOOL,
EAST ORANGE, NEW JERSEY

WEEK OF 7/13 - 7/17

MONDAY 7/13
TOPIC: QUESTIONING STRATEGIES, REVIEW OF TEACHING
STRATEGIES;LECTURE, DISCOVERY INQUIRY COOPERATIVE LEARNING
AND COMPUTER ASSISTED. - PEER TEACHING

WEDNESDAY 7/15

GUEST LECTURER: DR. MCBAY PROFESSOR OF CHEMISTRY
CLARK ATLANTA UNIVERSITY
PEER TEACHING - VIDEO TAPING ROUND 2

FRIDAY 7/17
TOPIC: LEVELS AND DIRECTIONS OF QUESTION
PEER TEACHING - VIDEO TAPING ROUND 2

WEEK OF 7/20 - 7/24

MONDAY 7/20 PEER TEACHING - VIDEO TAPPING ROUND 2

WEDNESDAY 7/22

PEER TEACHING VIDEO TAPING ROUND 2
TOPIC: REVIEW OF THE COURSE; LOOKING TO THE FUTURE
POST TEACHING ASSESSMENT

SCOPE/FTMS - 1993

SYLLABUS FOR

MATHEMATICS: TRIGONOMETRY

UNIT I (Chapter 7)

The Measurement of Angles
Some Special Angles
Trigonometric Functions of Angles
Trigonometric Functions of Real Numbers
Some Basic Trigonometric Identities
The Addition Formulas for Sine and Cosine

Unit II (Chapter 7)

Double-Angle, Half-Angle, and Reduction Formulas
Further Identities
Trigonometric Equations
Graphs of the Trigonometric Functions
The Inverse Trigonometric Functions

Unit III (Chapter 8)

Right Angle Trigonometry
The Law of Sines
The Law of Cosines
Areas of Triangles
On Vectors

Unit IV

Polar Coordinates
Parametric Equations
Trigonometric Form of Complex Numbers
Intercepts and Symmetry
Asymptotes

Unit V

Curve Sketching
Excluded Regions
The Parabola (General Equation and Graphs)
The Ellipse (General Equation and Graphs)
The Hyperbola (General Equation and Graphs)

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OPTIONAL TOPICS (TIME ALLOWING, or Special Projects)

Exponential and Logarithmic Functions
- The Exponential Functions
- The Inverse Exponential Functions
- Properties of Logarithms
- Applications of Exponential and Logarithmic Functions

Systems of Equations and Inequalities
- Linear Systems
- Reduction to Triangular Form
- The Use of Matrices
- Determinants and Cramers' Rule
- Algebra of Matrices
- Inverse of Matrices

- Non-linear Systems
- Systems of Inequalities
- Linear Programming

SCOPE/FTMS '93

Course Syllabus for Teaching Strategies

Instructors: B. Hicks
D.J. Wray

Day and Time: Hicks
1:00 - 2:55 MWF

Wray
9:00 - 10:55 MWF
2:00 - 3:55 MWF

June 16, Wednesday

Topic: Overview of Teaching Strategies: Why become a Teacher; What is an Effective Teacher?

Activities:
1. Introductions
2. Expectations
   a. Tests
   b. Quizzes
   c. Written Assignments
   d. 2 Video Tapings of Peer Teaching
   e. 1 Peer teaching Reflective Teaching
   f. 1 Group Lesson
   g. Several Group Assignments
3. Pros and Cons of Teaching
4. Groups of 4 or 5, determine characteristics of effective teachers; Present to class
5. Reflect personally on past teaching; write short essay on "Most effective teacher."
6. Time permitting essay on "The Importance of Becoming a Teacher."

HOMEWORK: Develop a 15 minute Lesson teaching a math skill. Middle Grades and up!

June 18, Friday

Topic: Peer Teaching - Video Taping Activities: Students pull numbers, turn in Lesson Plan

Assignment: Research the following:
1. What is "tracking" ?
2. What are the advantages and disadvantages of homogenous growing?
3. Describe developmental stages as as identified by Piaget.
4. Describe the eight levels of learning as specified by Roberg Gagne.
5. Compare and Contrast the theories of Gagne and Piaget.

June 21, Monday
Topic: Peer Teaching - Video Taping

Assignment: Read information on Effective Teachers

June 23, Wednesday

Topic: Peer Teaching - Video Taping;
Discuss: Research and the Effective Teacher, Compare to list made by each group; Discuss characteristics in peer teachers.

Assingment: Quiz
HOMEWORK: Read Information on Educational Philosophy; Prepare for quiz.

June 25, Friday

Topic: Discuss and define educational philosophies, Answer questions from Friday

Assignment: Test (Over Effective Teaching characteristics, Educational Philosophies, and Piaget and Gagnes.)
How to Solve It - Group problem solving session

HOMEWORK: Group Assignments Teaching Strategies
Group (1) Lecture (3) Inquiry (5) Computer Assisted
(2) Discovery (4) Cooperative Learning (6) Hands on or Manipulatives

1. Pros and Cons
2. When is it most used (age level subject) and most effective ?
3. When is it used least ?
4. Would you use this method if you were a teacher ?

June 28, Monday

Topic: Teaching Strategies

Activities:
1. Each group presents its strategy
2. Class Discussion
3. Quiz

HOMEWORK: Students are given Reflective Teaching Assignments

June 30, Wednesday

Topic: Reflective Teaching Rounds 1,2,3,4,5 and 5
Assignments given.

Assignment: Read information on Effective Teachers

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July 16, Friday

Topic: Peer Teaching - Video Taping

July 19, Monday

Topic: Peer Teaching - Video Taping

Wrap-up Review for Final Test

July 21, Wednesday

Topic: Final Exam

COURSE SYLLABUS
ENGLISH LANGUAGE/COMPOSITION
FOR
SCOPE/FTMS SECTION III
CLARK ATLANTA UNIVERSITY
JUNE 13-JULY 23, 1993

CLASS: English (Section III)
TIME: 11:00-11:55 M-F
PLACE: Room 101 Sage Hall
TEACHER: Moses C. Norman
MENTOR: Meca L. Walker

Textbook: Grammar and Usage (Complete Course), by McDougal, Littell and Company

COURSE OUTLINE

Unit I: The Artistry in Writing
- A. Selecting the purpose and audience
- B. Engaging in pre-writing activities
- C. Selecting and delimiting the subject or topic
- D. Framing the thesis statement
- E. Composing the introduction
- F. Selecting and arranging relevant supporting information
- G. Selecting sentence variety and transitional devices
- H. Ensuring unity and coherence
- I. Developing an impacting conclusion
- J. Having the composition evaluated by a jury of peers; then, having it assessed by the teacher

Unit II: Using the English Language As A Tool for Effective Communication
- A. Reviewing the parts of speech from a functional perspective
- B. Reviewing the kinds of sentences by form and function
- C. Reviewing the component parts of the sentence-subject, verb complements
- D. Reviewing the role and function of voice and mood in verbs
- E. Clarifying the nature and use of specific frequently confused verbs

Unit III: Applying the Mechanics of Capitalization, Spelling and Punctuation in the Writing Process
- A. Learning to use internal and end punctuation effectively
- B. Learning to capitalize words, phrases, names, documents, etc. in accord with trends and principles
- C. Applying the rules and conventions of spelling

Unit IV: Writing the Research Paper: Process and Product
- A. Selecting a subject
- B. Gathering data on the topic or subject

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C. Delimiting the subject or topic
D. Taking and organizing notes on the subject or topic
E. Framing the thesis or hypothesis
F. Selecting and using relevant data
G. Writing the first draft
H. Editing and refining the first draft
I. Documenting sources of information by using footnotes and endnotes
J. Compiling the bibliography
K. Proofreading the final draft before having it copied for submission

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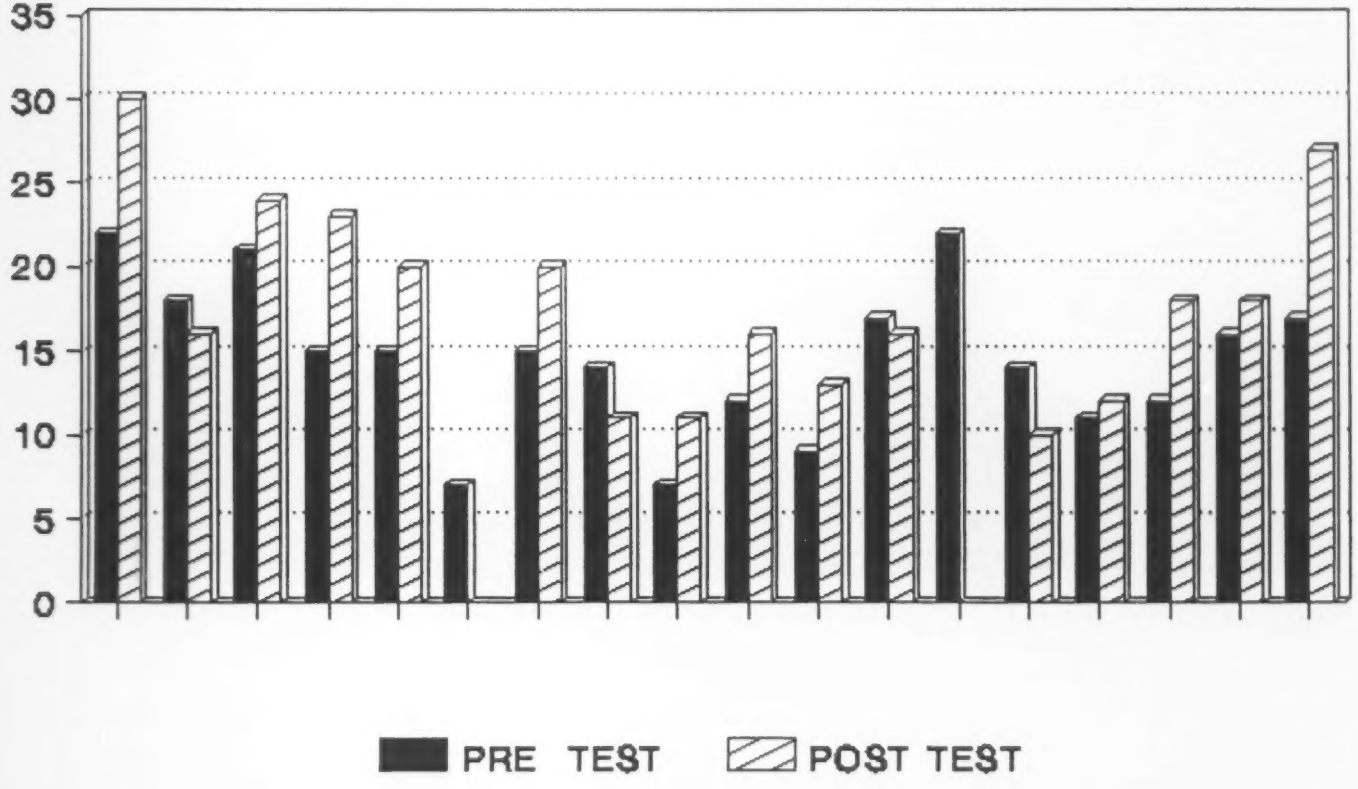
APPENDIX E

ANALYSIS OF PRE/POST TESTS

•	1991	Section I	Elementary Algebra Intermediate Algebra Elementary English
		Section II	Elementary Algebra Intermediate Algebra Elementary English
•	1992	Section I	Elementary Algebra Intermediate Algebra English
		Section II	Elementary Algebra Intermediate Algebra English
		Analysis of Survey of Study Habits & Attitudes (Pre-Test Data)	
•	1993	Section I	IOWA Tests Elementary Algebra Intermediate Algebra Elementary English
		Section II	IOWA Tests Elementary Algebra Intermediate Algebra Elementary English

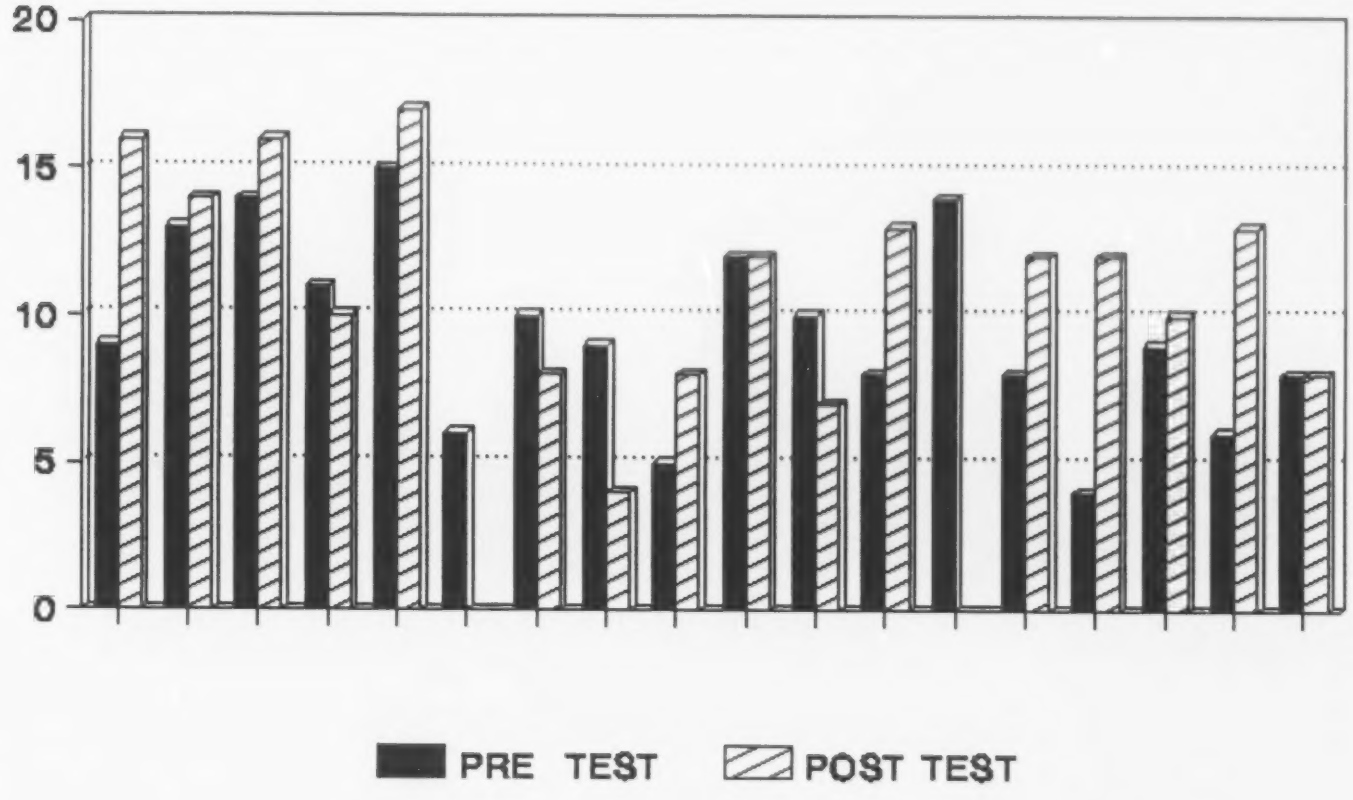
1991
PRE/POST TESTS DATA

ELEMENTARY ALGEBRA SEC I
PRE/POST TEST SUMMER 1991

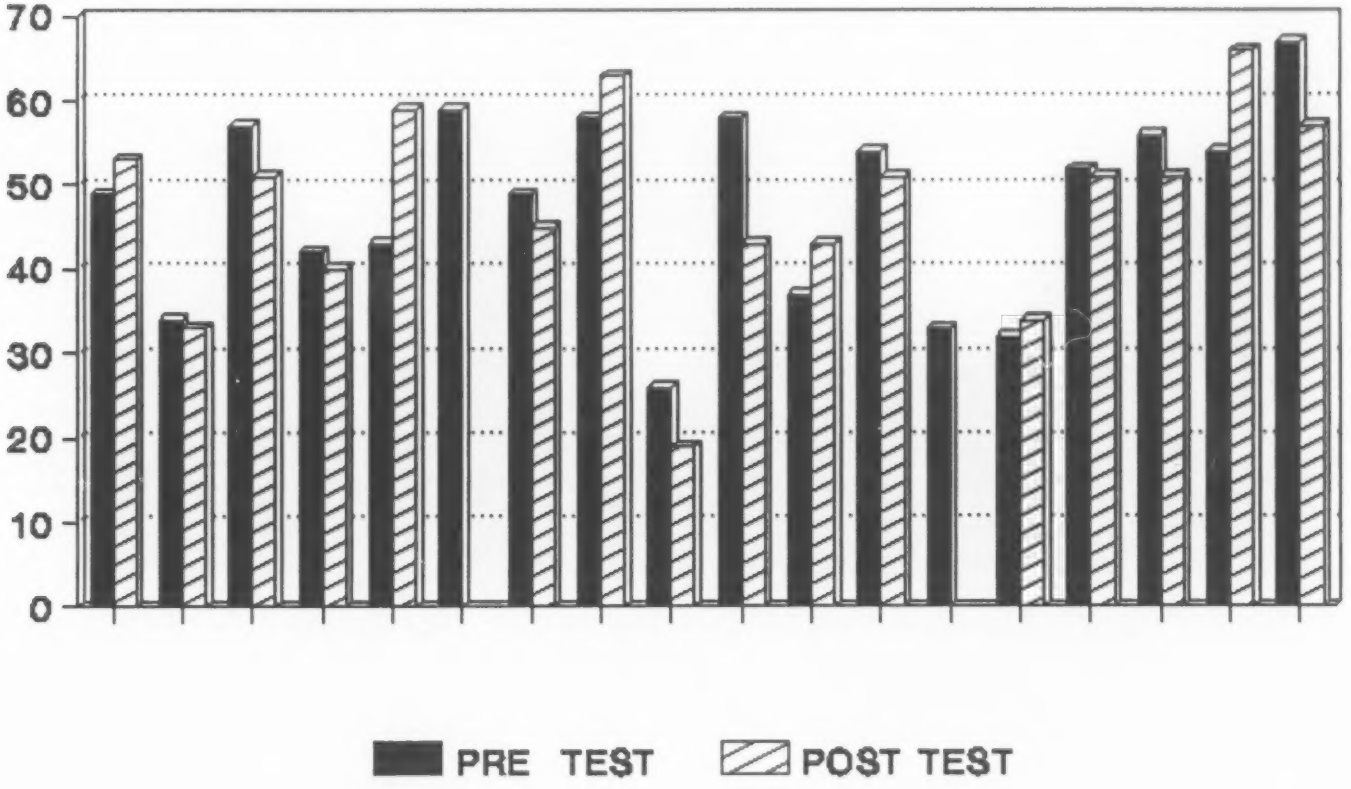


INTERMEDIATE ALGEBRA SEC I

PRE/POST TEST SUMMER 1991



ELEMENTARY ENG. SEC I
PRE/POST TEST SUMMER 1991



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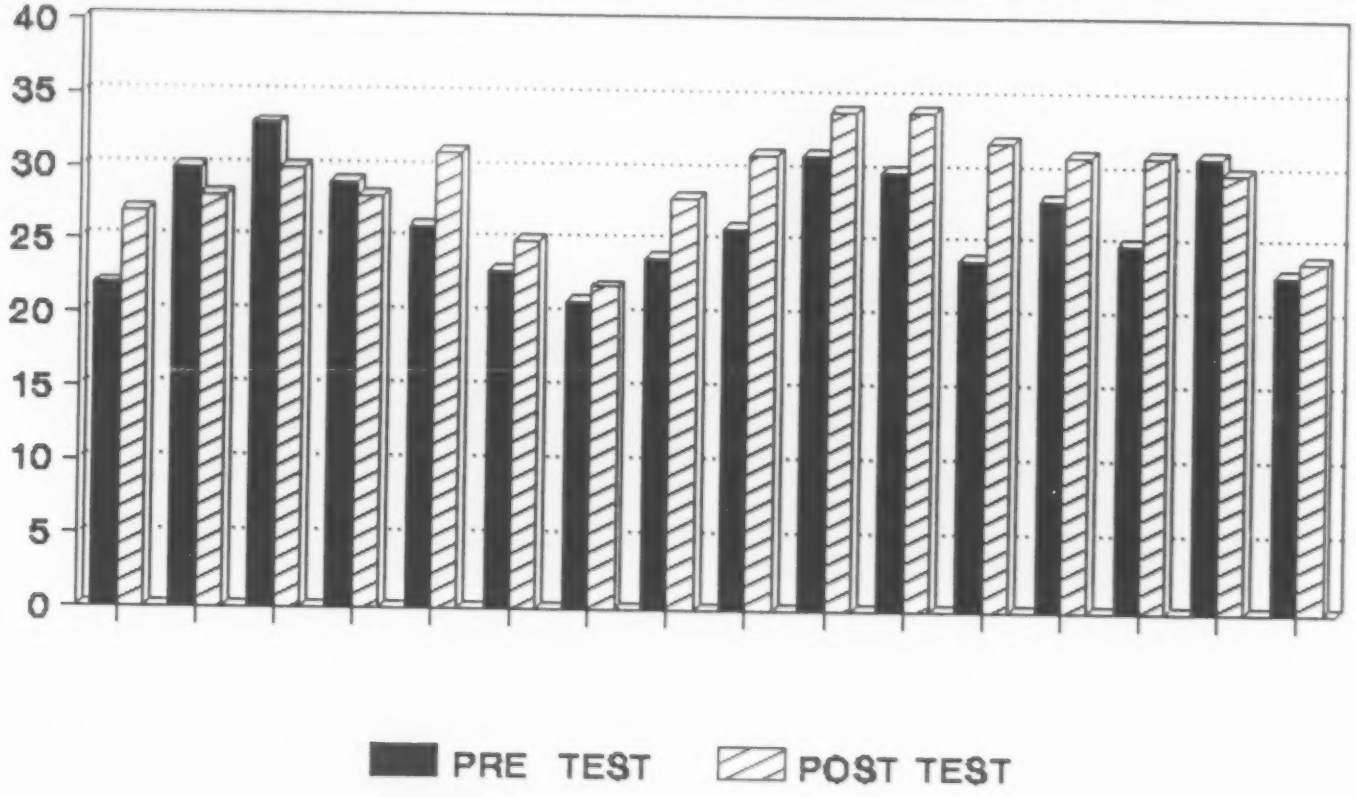
PRE/POST TEST SUMMER 1991



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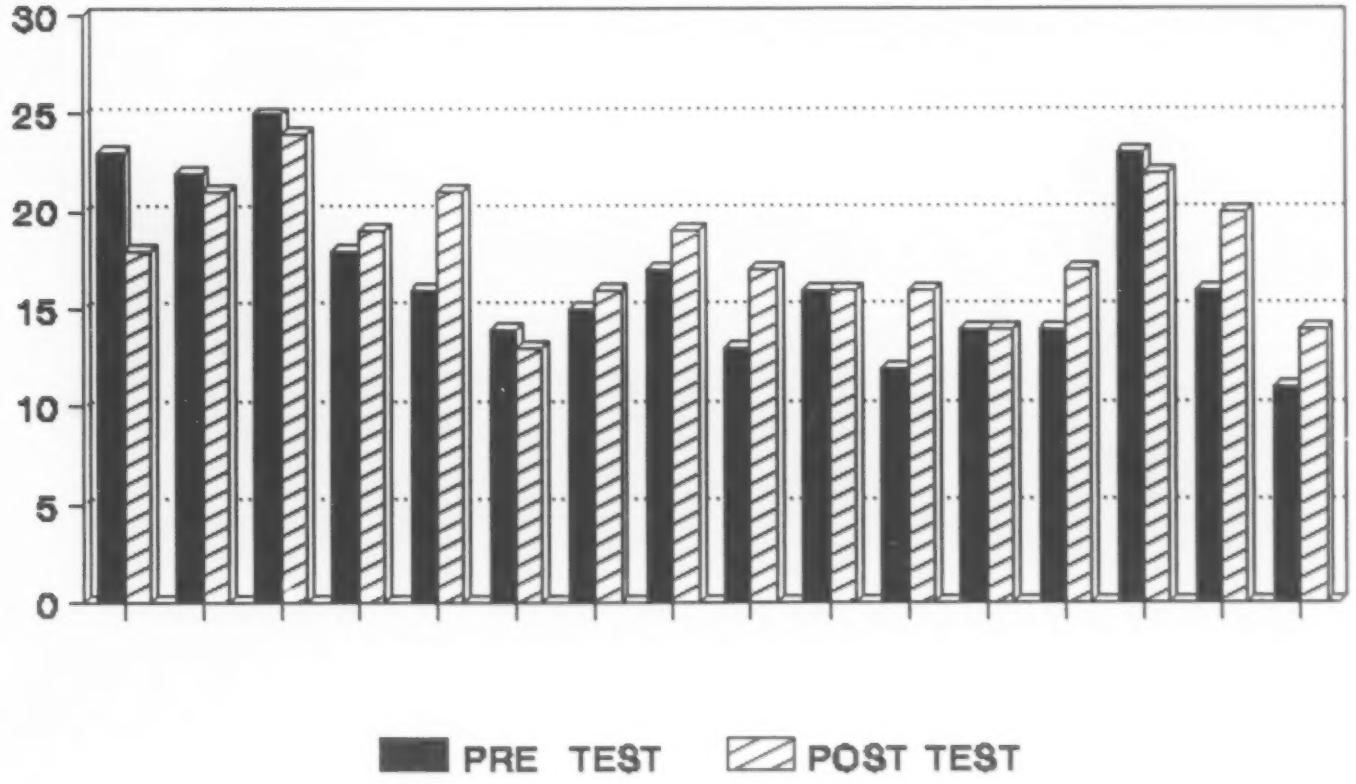
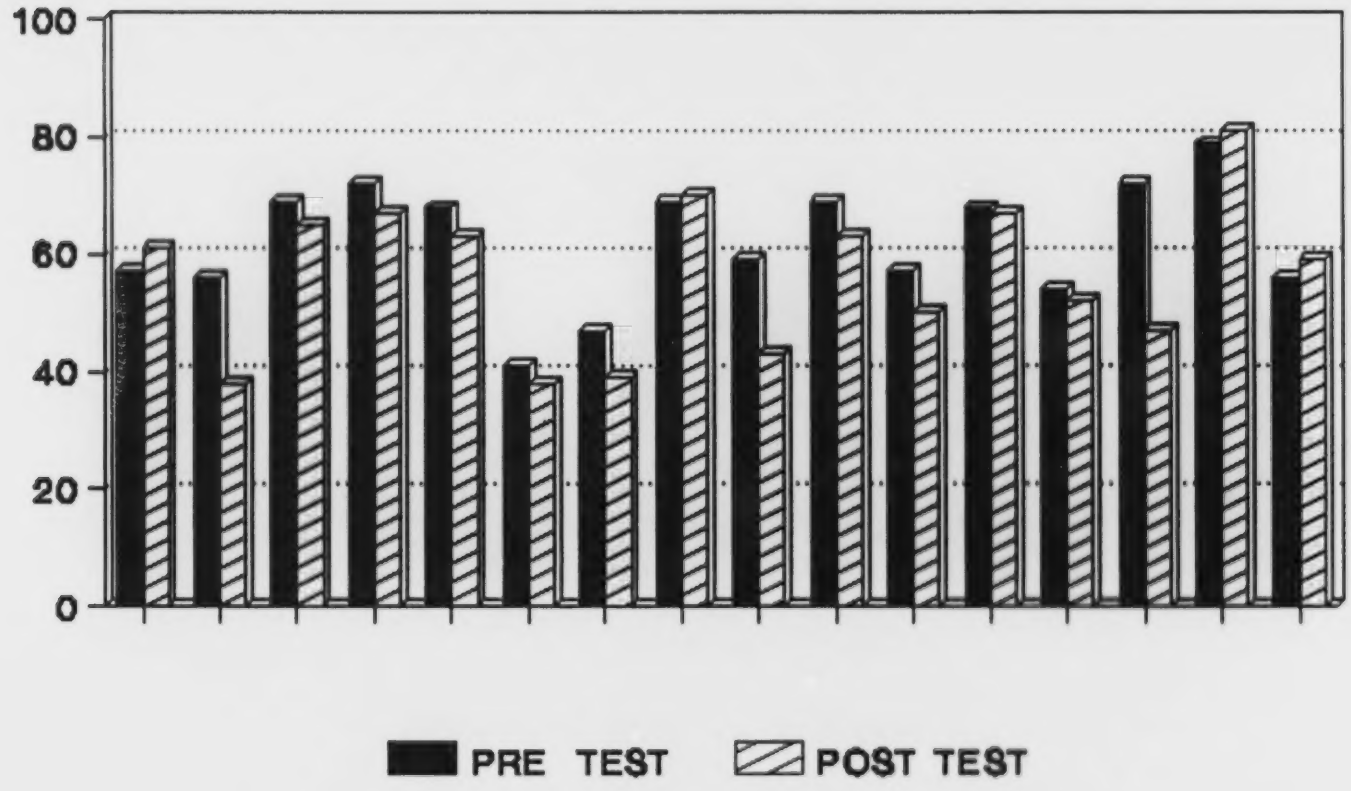
PRE/POST TEST SUMMER 1991

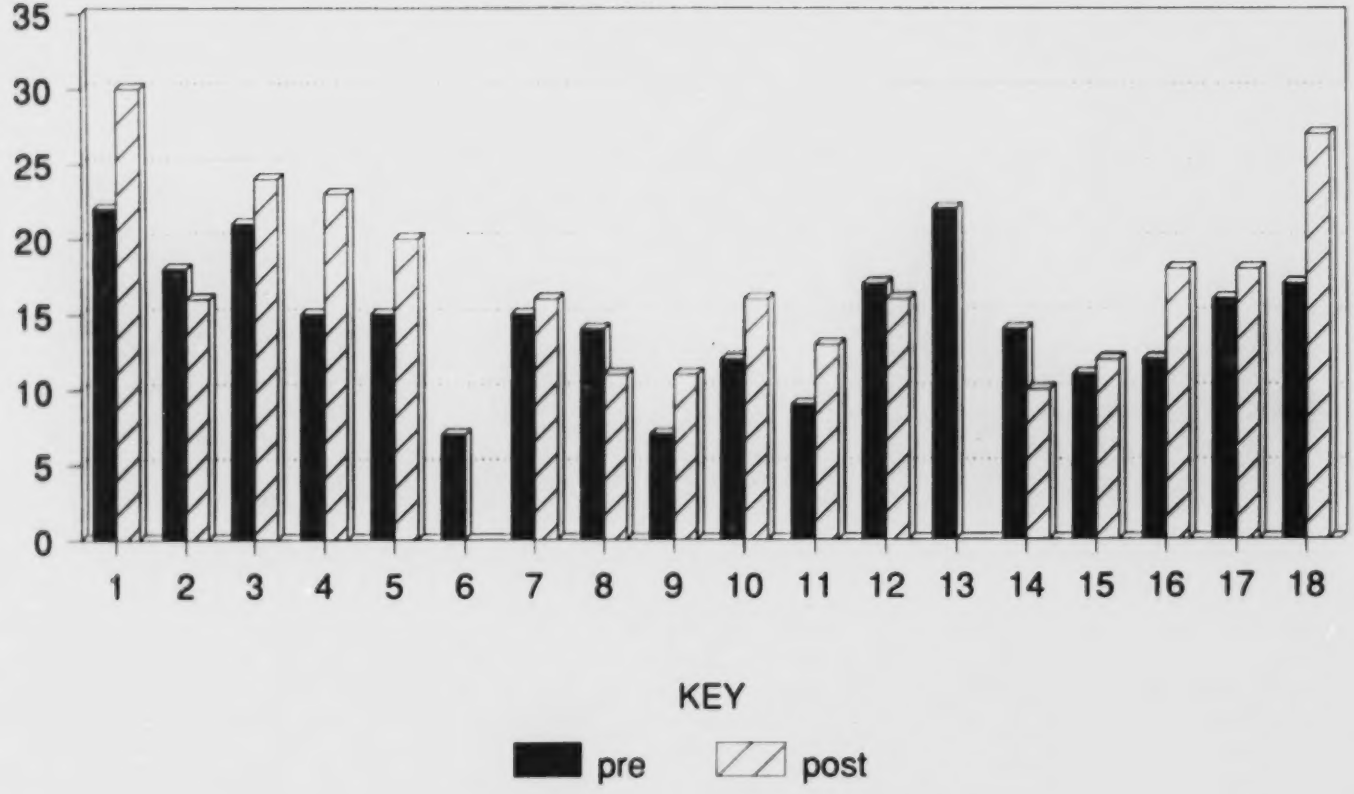


ELEMENTARY ENG. SEC II
PRE/POST TEST SUMMER 1991

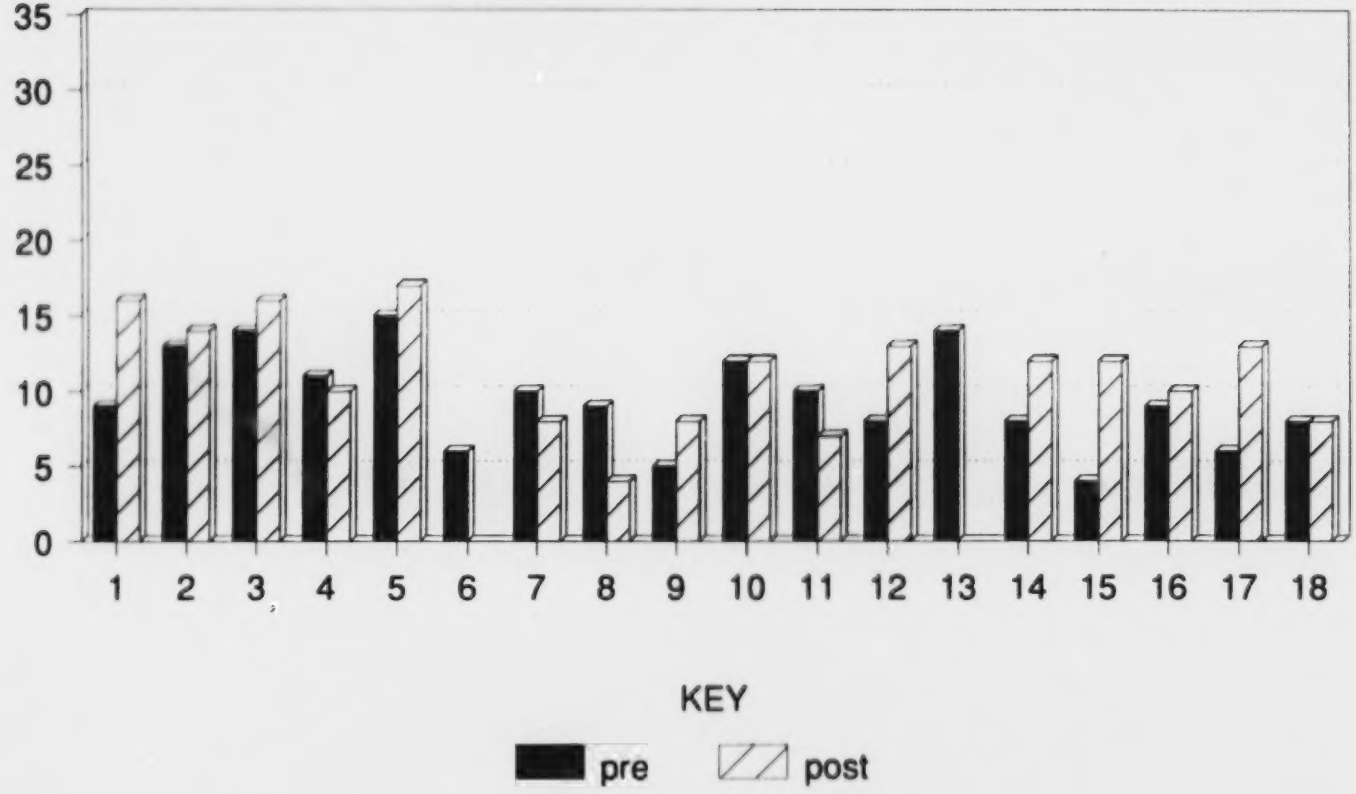


1992
PRE/POST TESTS DATA

Section I pre/Post Test
Elementary Algebra

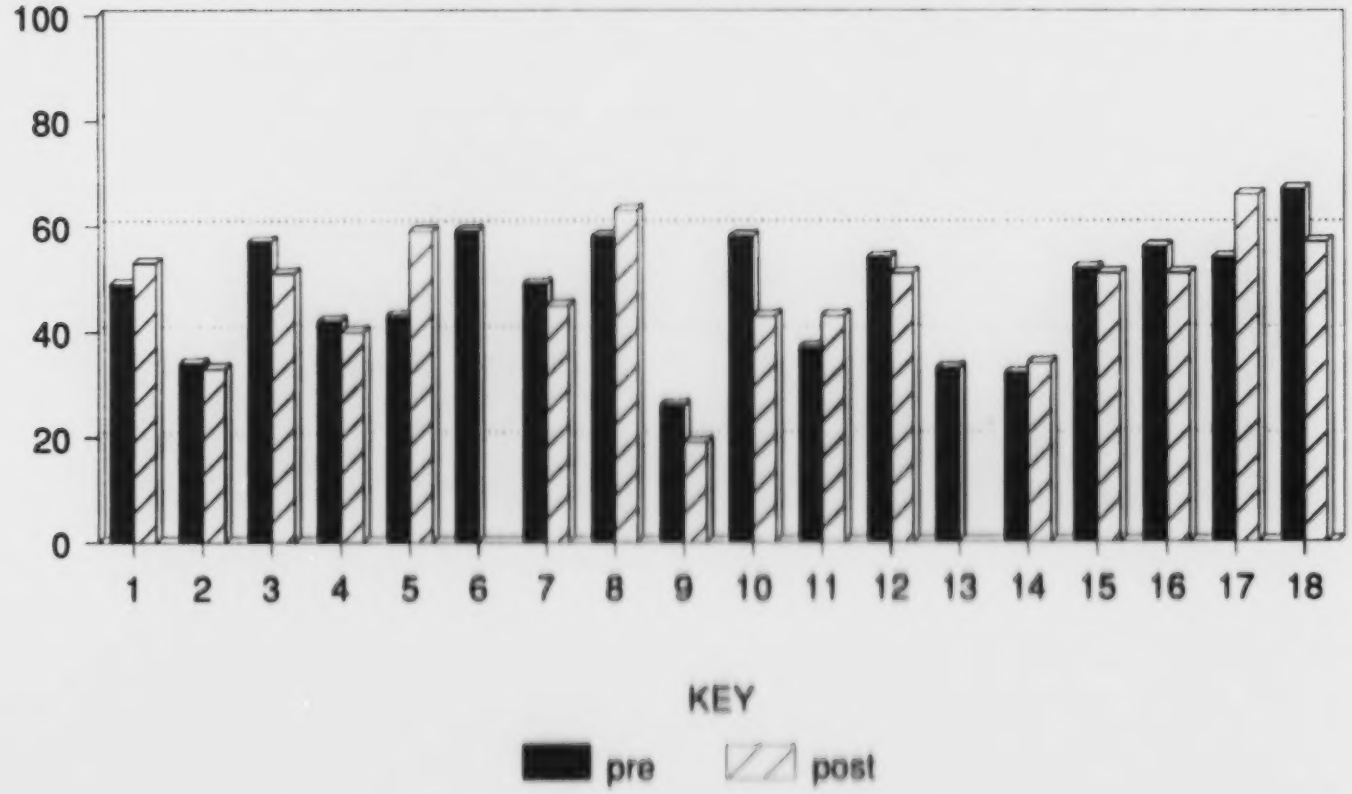


Section I pre/Post Test
Intermediate Algebra

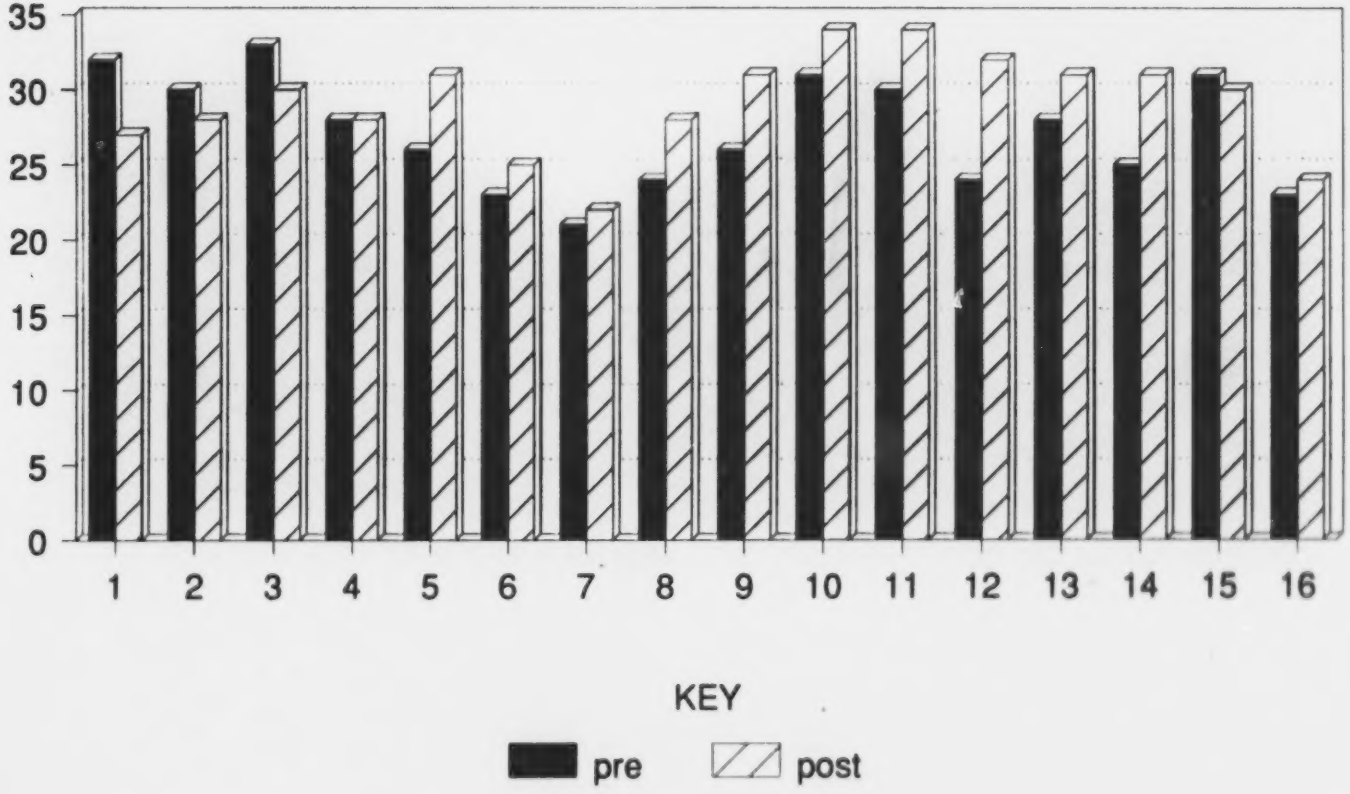


Section I Pre/Post Test

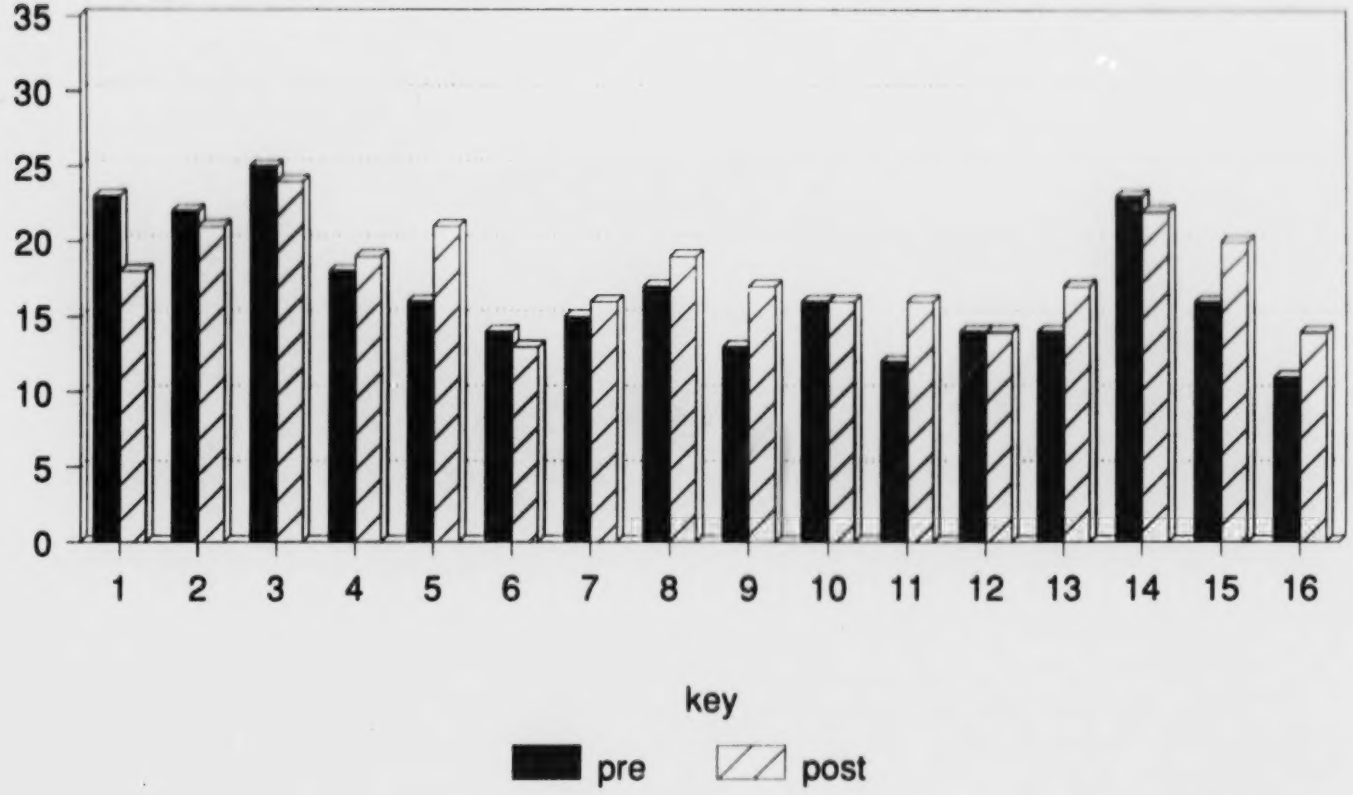
English



Section II Pre/Post Test
Elementary Algebra

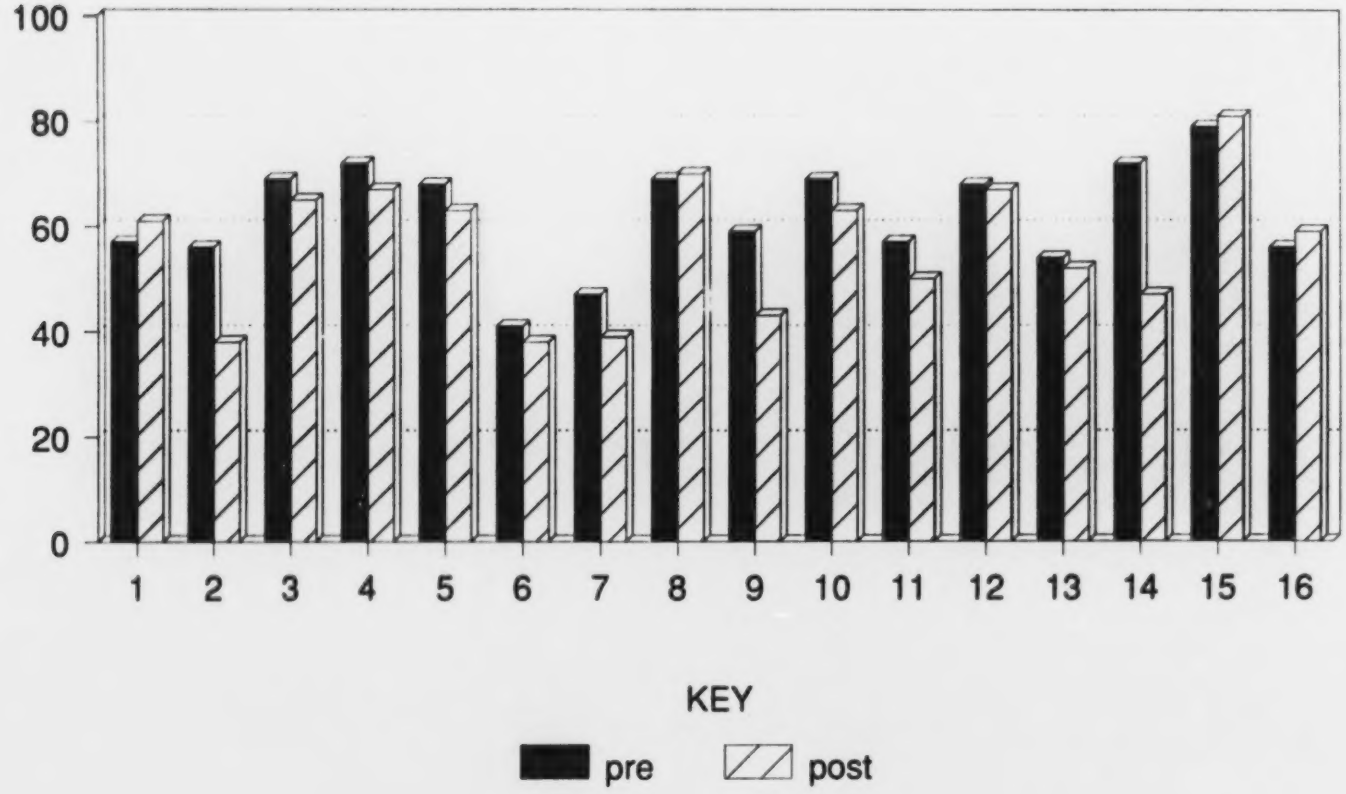


Section II Pre/Post Test
Intermediate Algebra

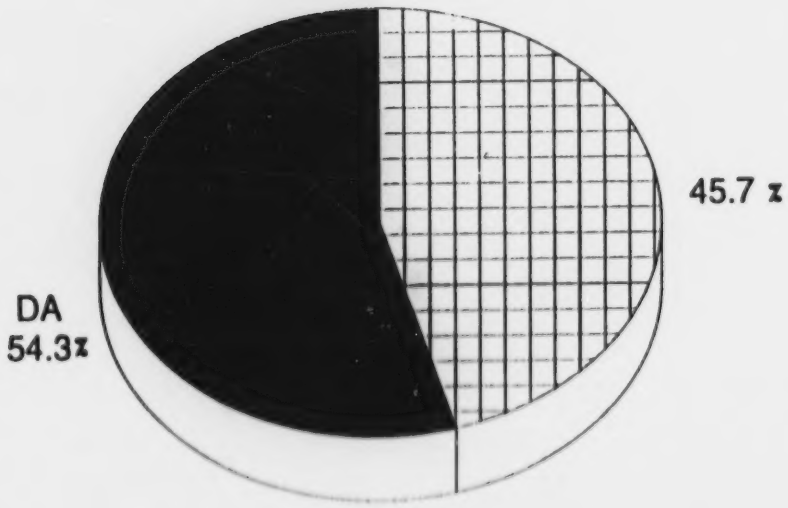


Section II Pre/Post Test

English

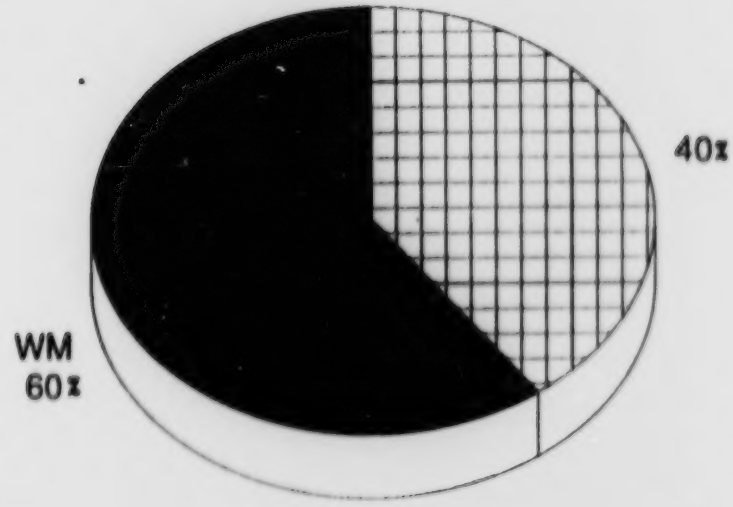


SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Delay Avoidance



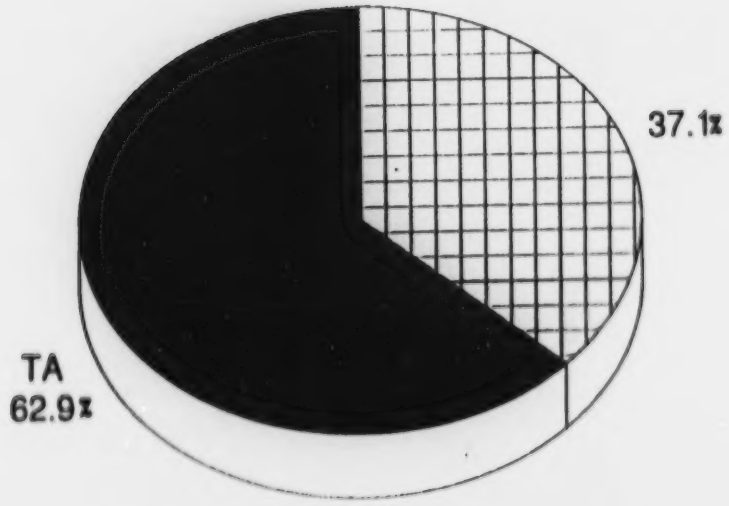
DA (Delay Avoidance) - Below 22 means serious attempts on the student's part to regularly delay or avoid studying.

SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Work Methods



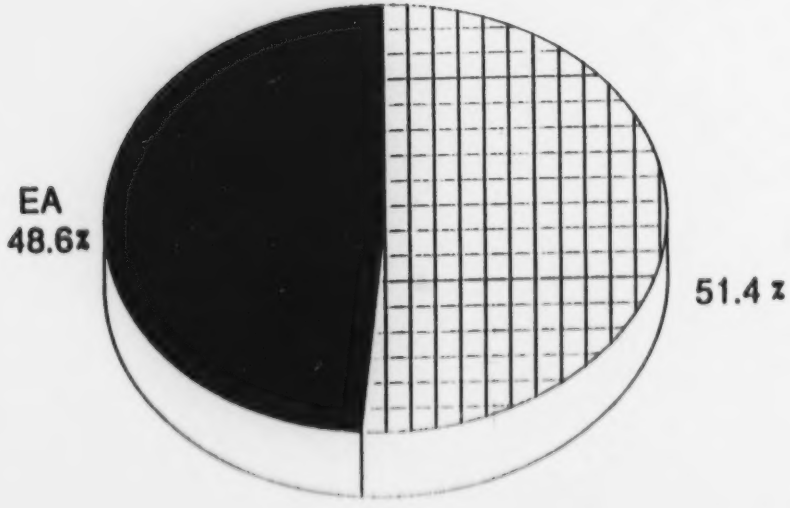
WM (Work Methods) - Below 26 indicates the need to improve work methods.

SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Teacher Approval



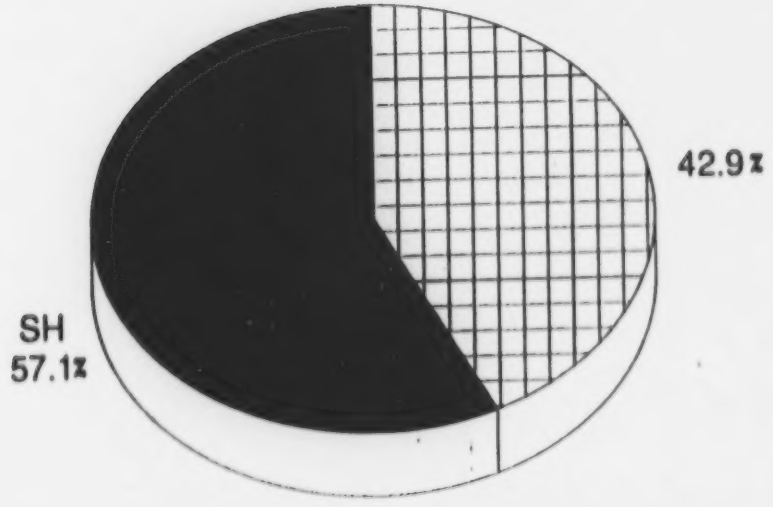
TA (Teacher Approval) - Below 28 indicates poor opinions of teachers and their classroom behaviors and methods.

SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Education Acceptance



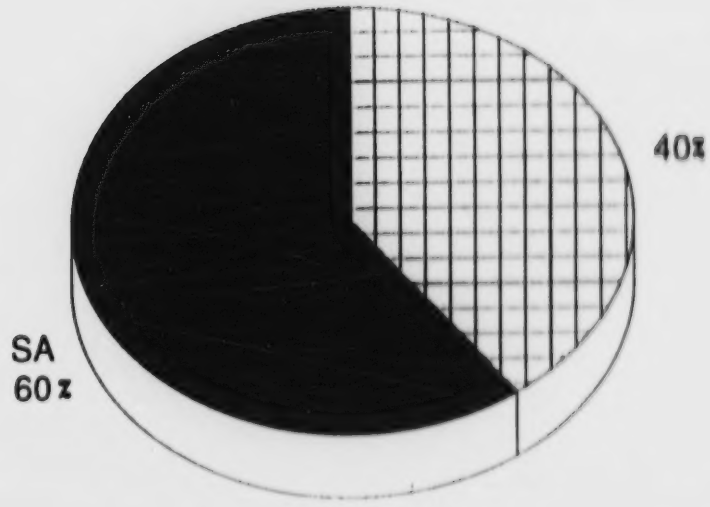
EA (Education Acceptance) - Below 28 indicates lack of acceptance of educational objectives, practices and requirements.

SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Study Habits



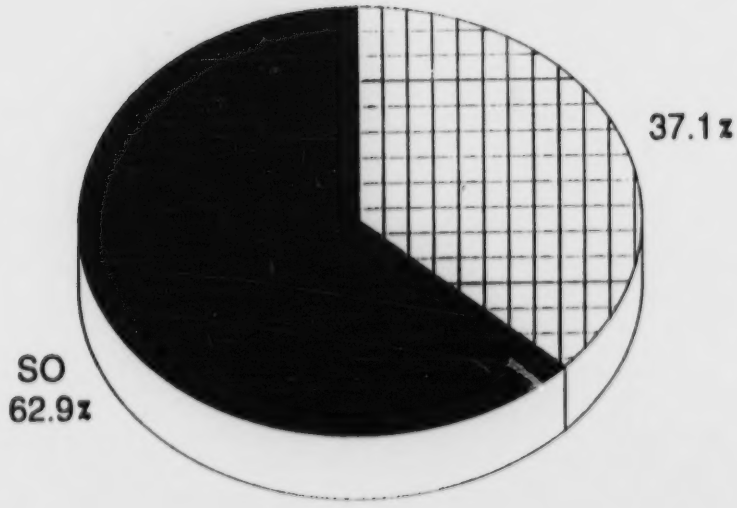
SH (Study Habits) - Below 49 indicates a need for overall improved academic behavior; below 56 indcates poor belief in scholastic ability.

SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Study Attitude



SA (Study Attitude) - Below 56 indicates an overall low opinion of academia and unclear goals for obtaining an education.

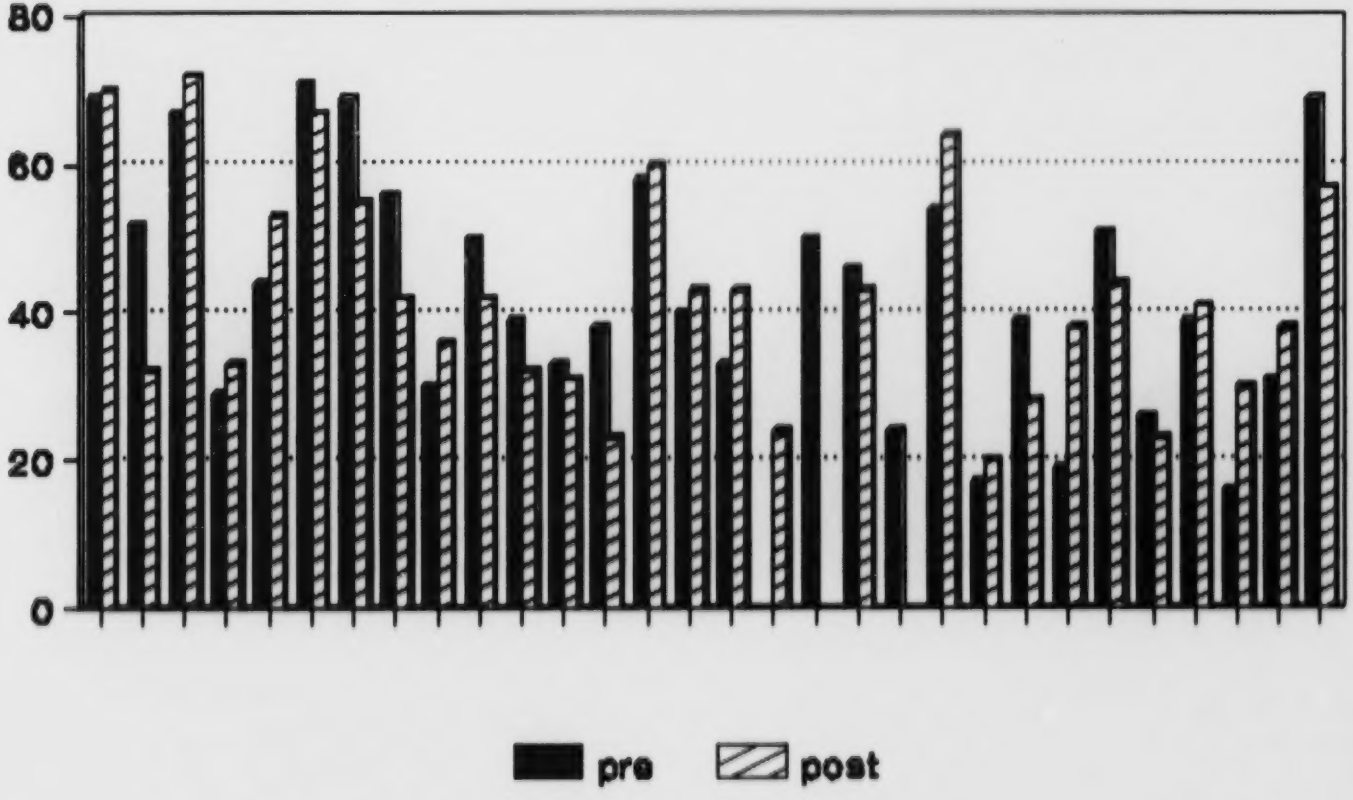
SURVEY OF STUDY HABITS AND ATTITUDES
SCORES INTERPRETATION
Percent of Student Study Orientation



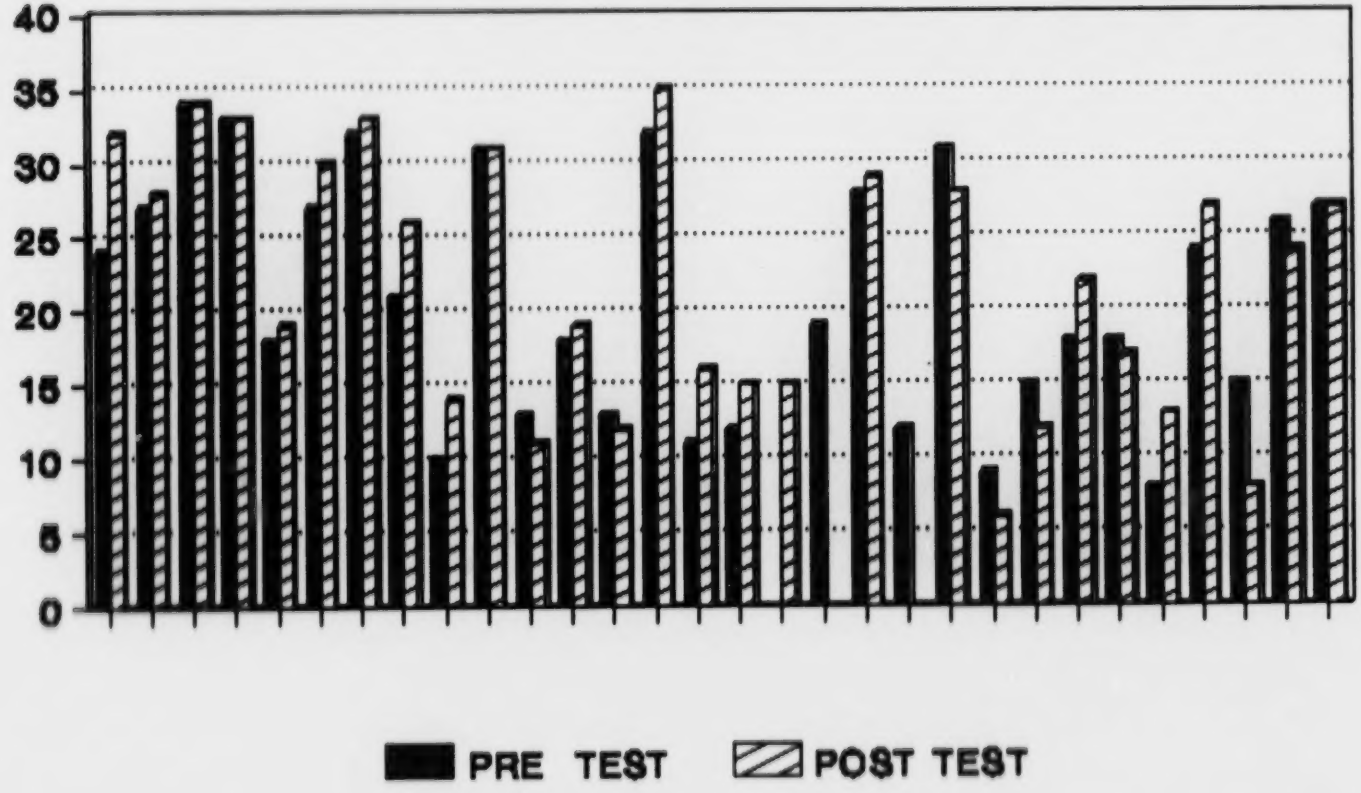
SO (Study Orientation) - Below 106 indicates a low overall orientation towards good study habits and attitudes to study.

1993
PRE/POST TEST DATA

IOWA TEST SEC I
PRE/POST TEST SUMMER 1993



ELEMENTARY ALGEBRA SEC I
PRE/POST TEST SUMMER 1993



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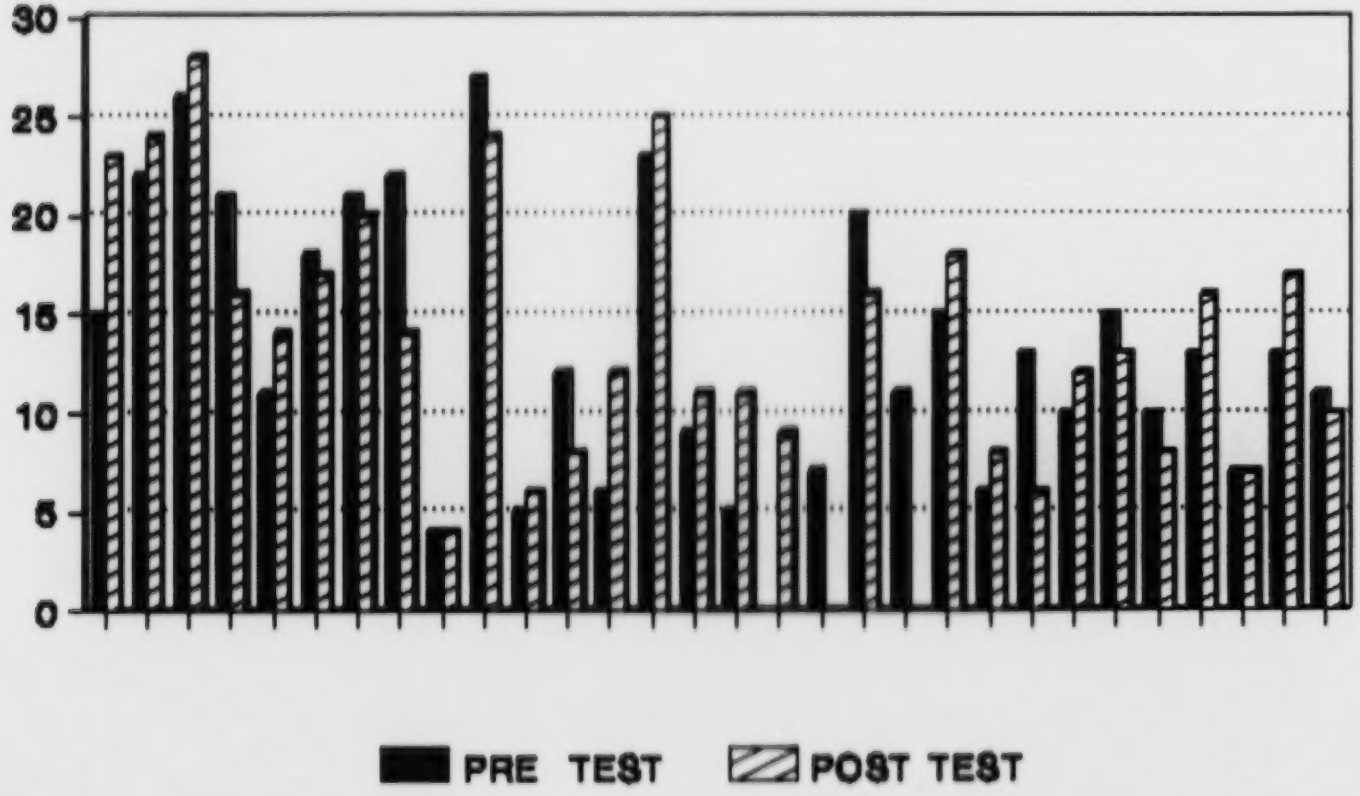
PRE/POST TEST SUMMER 1993



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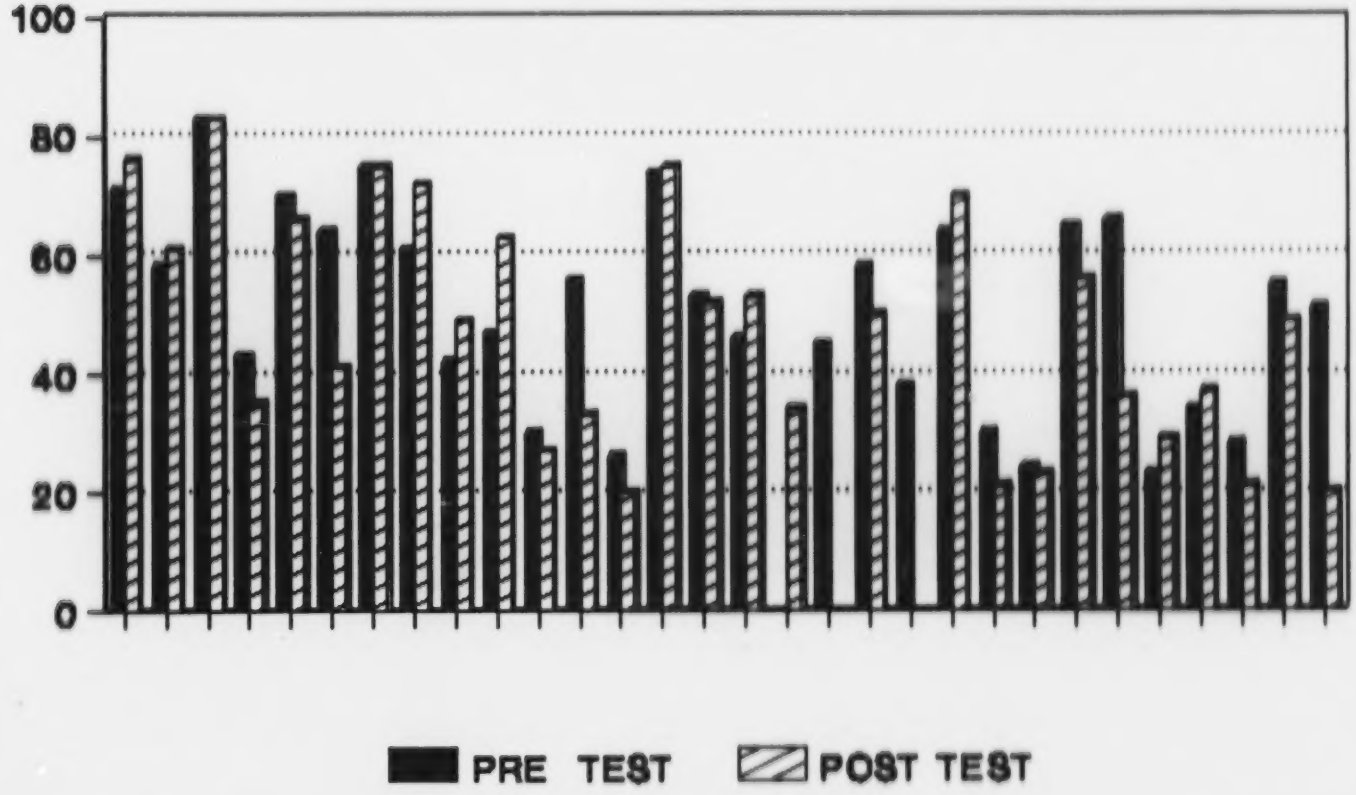
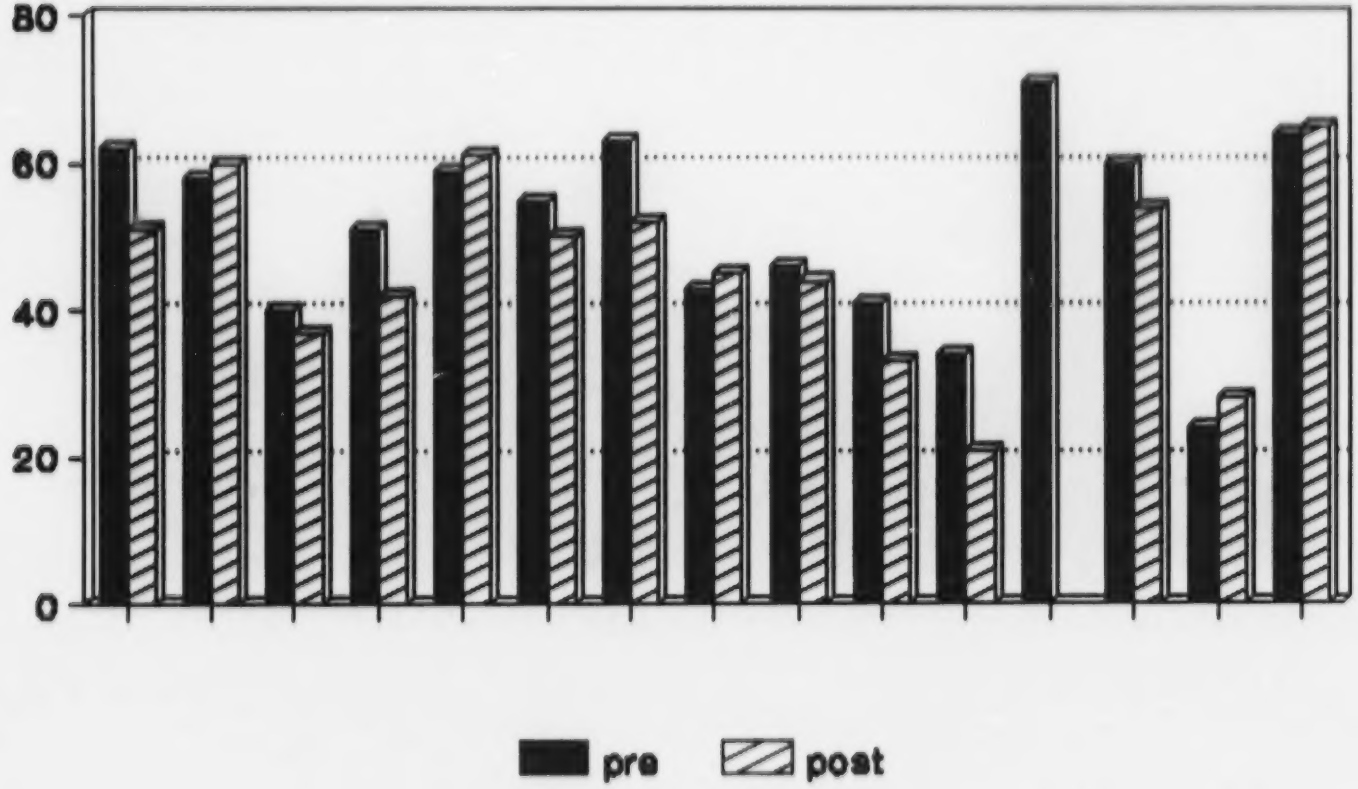
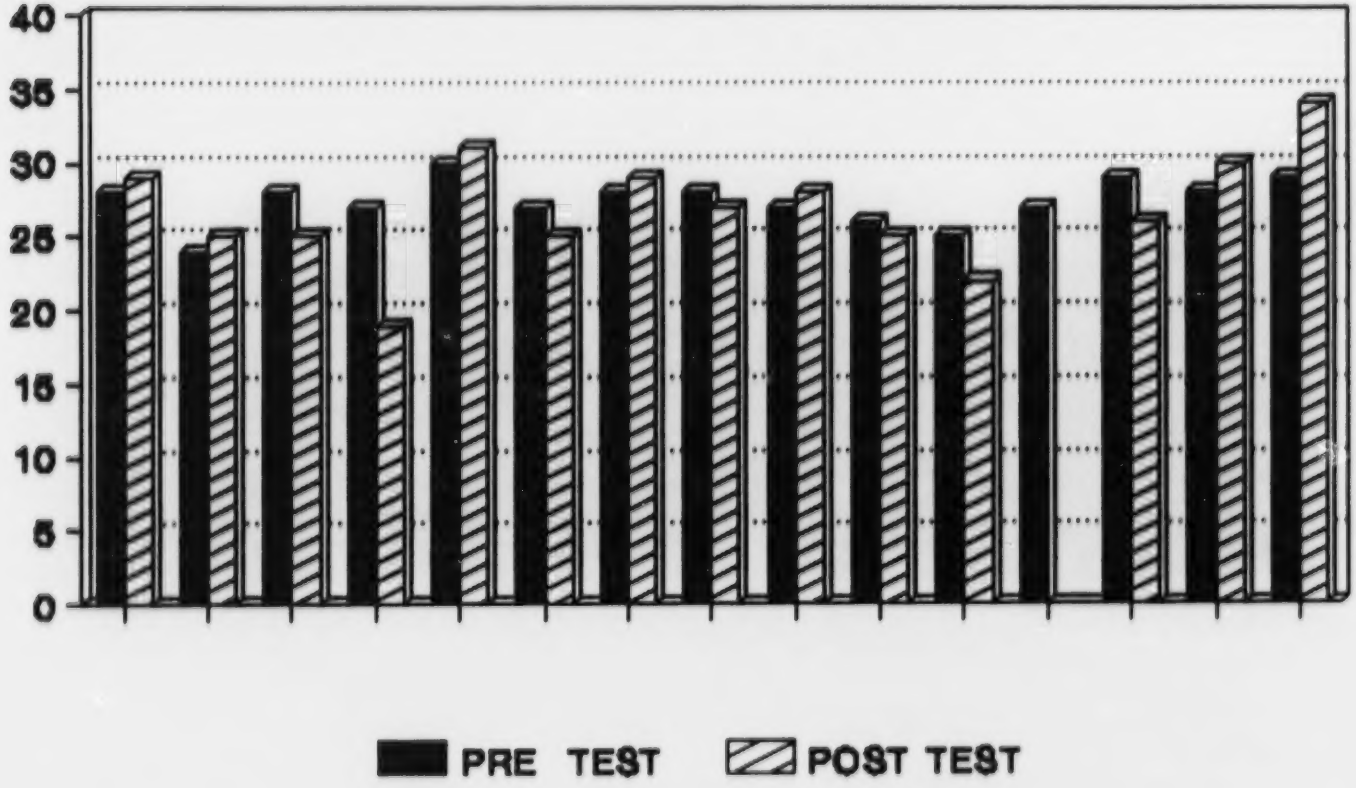
PRE/POST TEST SUMMER 1993



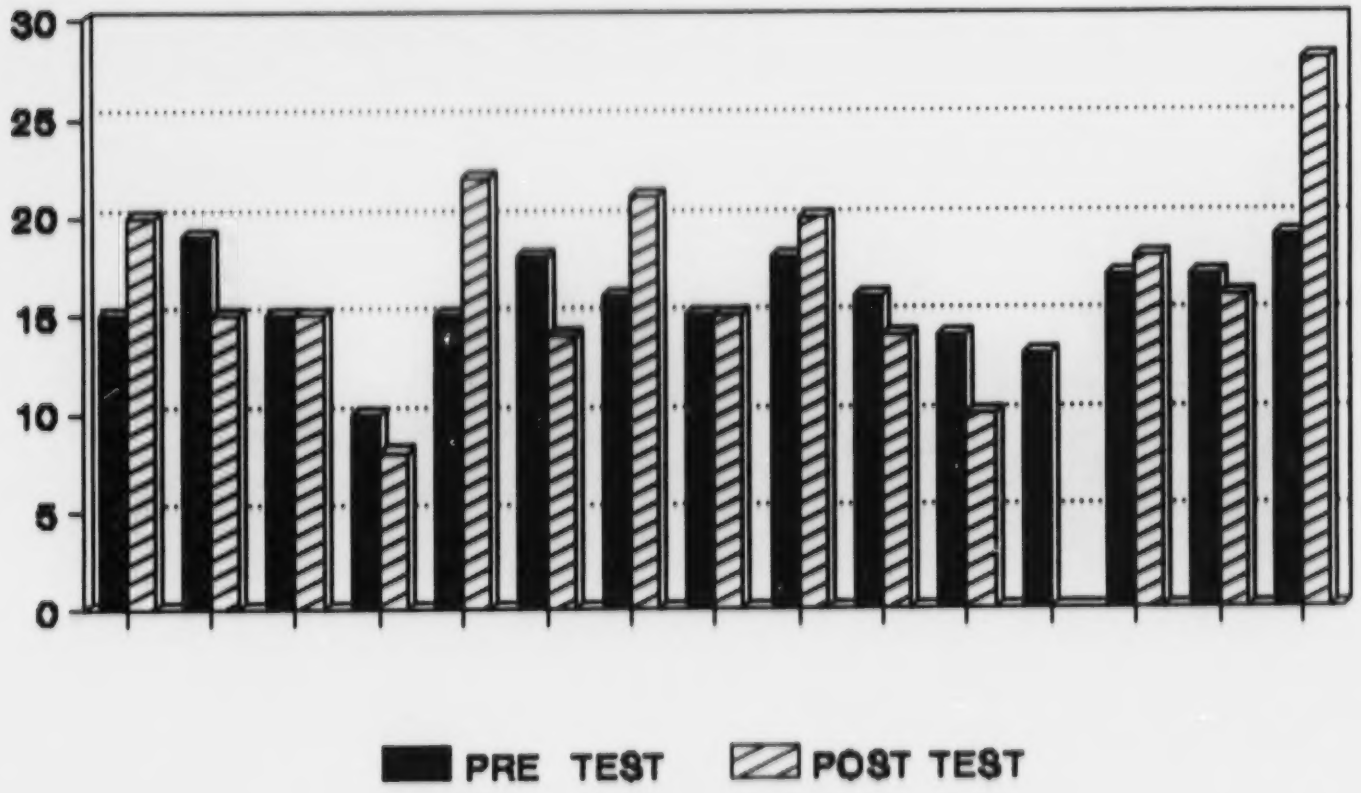
IOWA TEST SEC II
PRE/POST TEST SUMMER 1993



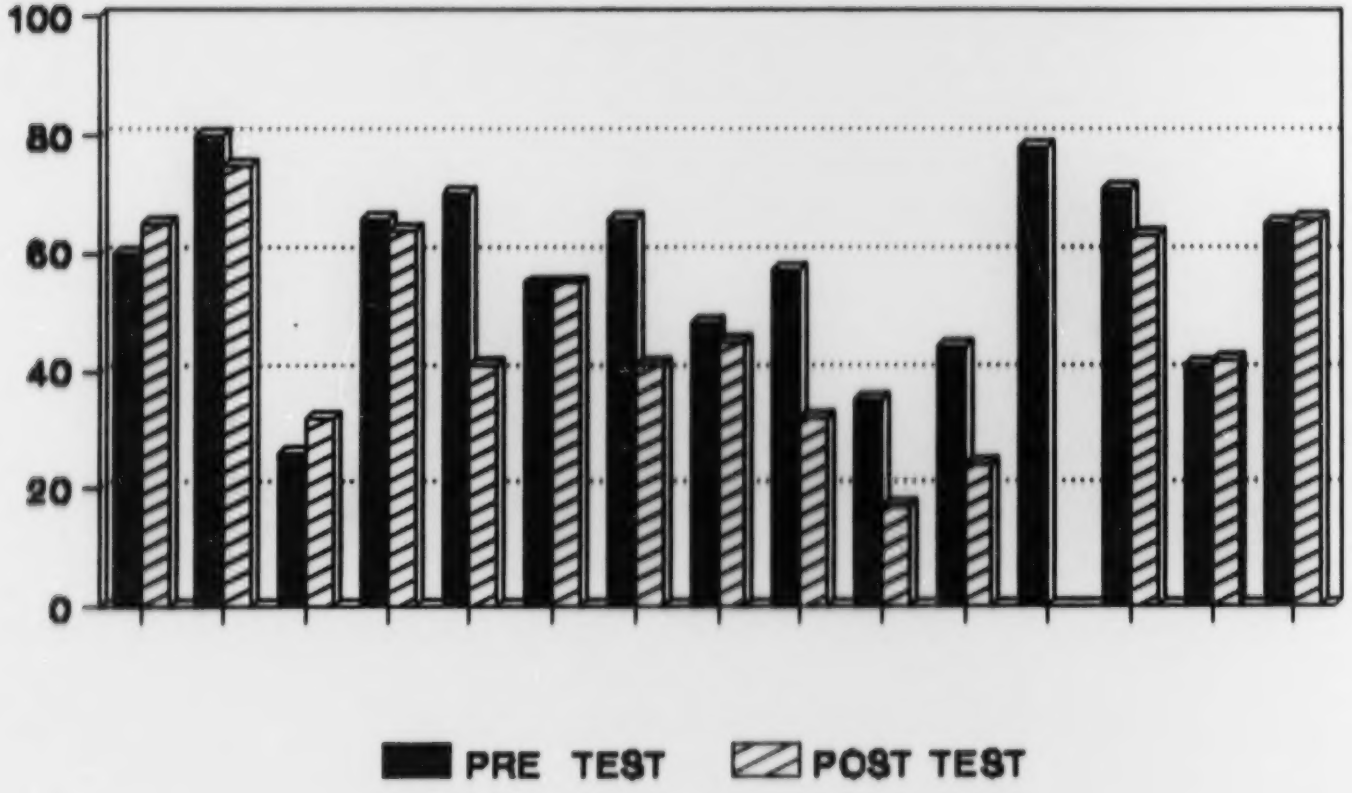
ELEMENTARY ALGEBRA SEC II
PRE/POST TEST SUMMER 1993



INTERMEDIATE ALGEBRA SEC II
PRE/POST TEST SUMMER 1993



ELEMENTARY ENG. SEC II
PRE/POST TEST SUMMER 1993



APPENDIX F

SCOPE FORMS

- Instructor/Counselor Evaluation of Students
- Student Evaluation of Courses
- Student Evaluation of Faculty/Mentors
- Student Evaluation of Mentors
- Evaluation of SCOPE Administrators
- Certificate of Program Completion

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE:SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

INSTRUCTOR/COUNSELOR EVALUATION OF STUDENTS (1992)

SECTION I _____ **SECTION II** _____

EVALUATION OF: _____
(Student's Name)

COMPLETED BY: _____

_____ **INSTRUCTOR** ____ **COUNSELOR**

COURSE: _____

Excellent=A **Good=B** **Fair=C** **Poor=D** **Not Applicable=E**

1. Class Attendance/Tardy
2. Execution of Class Assignments
3. Completion of Homework
4. Acquisition of Knowledge
5. Class Participation
6. Attitude Towards Class
7. Performance on Tests/Quizzes
8. Performance in Laboratory
9. Arithmetic Progress
10. Oral Communication Skills
11. Written Communication Skills
12. Reading Skills and Abilities
13. Critical and Analytical Thinking Skills
14. Study Habits
15. Interaction With Peers
16. Evidence of Self-Discipline

COMMENTS/RECOMMENDATIONS: Please use back of this form, if necessary, for completing your comments.

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

STUDENT EVALUATION OF COURSES (1992)

SECTION I _____ **SECTION II** _____

COURSE: _____

Excellent=A Good=B Fair=C Poor=D Not Applicable=E

1. Experience Provided For Gaining New Knowledge
2. Useful Ideas and Information Presented
3. Provided New Ideas and Information
4. Relationship Of Problem Solving Strategies and Assigned Problems
5. Emphasis Upon Development Of Good Communication Skills
6. Emphasis Upon Application Of Mathematical Skills
7. Opportunities For Critical Thinking
8. Opportunities For Classroom Discussions
9. Opportunities To Use Reference Materials
10. Instructor Was Well Prepared For Class
11. Instructor Was On Time For Class
12. Class Sessions Were Interesting
13. Material Was Explained Well
14. Plenty of Opportunities Were Provided To Use New Information
15. Feedback Was Provided On Homework
16. Opportunities To Participate In Class Discussions Were Adequate
17. Rate Course As A Whole

COMMENTS/RECOMMENDATIONS: Please use back of this form, if necessary, for completing your comments.

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

STUDENT EVALUATION OF FACULTY/MENTORS (1992)

SECTION I _____ **SECTION II** _____

NAME OF FACULTY/MENTOR _____

A= Strongly Agree B=Agree C=Disagree D=Strongly Disagree

E=Don't Know or Not Applicable

TO THE STUDENT:
Please respond to the following questions by marking A through E on the answer sheet in response to each question. An "A" is the highest rating you can give, and a "D" is the lowest rating you can give. You may use all the letters from A through D to indicate the degree to which you agree with the statement.

Always mark "E" in response to a question that you do not know the answer to or that does not apply.

1. My instructor makes clear what is expected of students in this course.
2. My instructor is covering the contents and objectives of the course as stated.
3. My instructor shows enthusiasm for teaching the subject.
4. My instructor's presentations are clear and understandable.
5. My instructor's methods (whether lecture, discussion, media, labs, supplementary readings) are helpful to me in learning the subject.
6. Assignments are clearly related to the content of the course.
7. Tests are clearly related to the content of the course.
8. My instructor seems well prepared for class.
9. In this course I feel challenged and motivated to learn.
10. I feel free to ask questions in class.
11. My instructor comments adequately on papers, coursework, and/or tests.
12. My instructor deals fairly with me.
13. My instructor meets class punctually.
14. My instructor uses class time effectively.

15. My instructor is available for extra help outside of regular class time.

16. My instructor always treats me politely.

17. I would recommend this instructor to other students.

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

EVALUATION OF SCOPE ADMINISTRATORS (1992)

Administrative Staff:

Name _____

Please evaluate the SCOPE Administrators in the following areas:

Legend:

Excellent = A Good = B Fair = C Poor = D Not Applicable = E

1. Effectiveness as an Administrator/Manager

2. Effectiveness as a leader

3. Effectiveness as an advisor to students

4. Capability to work with faculty, students, staff

5. Effectiveness as a manager of program operations

6. Additional comments (use back if needed)

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY
FOR POTENTIAL EDUCATORS (SCOPE) AND FUTURE TEACHERS OF
MATHEMATICS AND SCIENCE (FTMS)

INSTRUCTOR/COUNSELOR EVALUATION OF STUDENTS (1993)

SECTION I _____ SECTION II _____ SECTION III _____

EVALUATION OF: _____
(Student's Name)

COMPLETED BY: _____

_____ INSTRUCTOR _____ COUNSELOR

COURSE: _____

Excellent=A Good=B Fair=C Poor=D Not Applicable=E

1. Class Attendance/Tardy
2. Execution of Class Assignments
3. Completion of Homework
4. Acquisition of Knowledge
5. Class Participation
6. Attitude Towards Class
7. Performance on Tests/Quizzes
8. Performance in Laboratory
9. Arithmetic Progress
10. Oral Communication Skills
11. Written Communication Skills
12. Reading Skills and Abilities
13. Critical and Analytical Thinking Skills
14. Study Habits
15. Interaction With Peers
16. Evidence of Self-Discipline
17. Letter grade for the course _____

COMMENTS/RECOMMENDATIONS: Please use back of this form, if necessary, for completing your comments.

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE) AND FUTURE TEACHERS OF MATHEMATICS AND SCIENCE (FTMS)

STUDENT EVALUATION OF INSTRUCTORS (1993)

SECTION I _____ SECTION II ____ SECTION III ____

Excellent = A Good = B Fair = C Poor = D Not applicable = E

1. The instructor provided new knowledge.
2. The instructor presented information in a clear and easily understood manner.
3. The instructor emphasized the application of material, skills and concepts related to the course.
4. The instructor provided opportunity for student participation.
5. The instructor was knowledgeable in subject area.
6. The instructor provided opportunity for students to use reference or outside resources.
7. The instructor was well prepared for class each day.
8. The instructor was on time and used time wisely.
9. The instructor gave homework and provided feedback as needed.
10. The instructor made the class challenging and enriching.
11. I RATE THE INSTRUCTOR ON THE WHOLE AS:

CLARK ATLANTA UNIVERSITY

PRE-COLLEGE: SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE) AND FUTURE TEACHERS OF MATHEMATICS AND SCIENCE (FTMS)

STUDENT EVALUATION OF MENTORS

SECTION I ____ SECTION II ____ SECTION III ____

MENTOR _____

PLEASE SELECT THE TERM THAT BEST REFLECTS YOUR ASSESSMENT OF EACH MENTOR IN EACH AREA SPECIFIED.

A = Excellent B = Good C = Fair D = Poor E = Not applicable

1. Was helpful with class work.
2. Was helpful with personal concerns.
3. Was accessible in dormitory and on weekends.
4. Was helpful during field trips and seminars.
5. Was helpful in developing sense of unity and teamwork among students.
6. Showed respect and concern for students.
7. Served as role model for potential college students.

CLARK ATLANTA UNIVERSITY

SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

1993

This is to certify that

_____

has successfully completed a six-week

Summer Enrichment Program in Mathematics, Science,

Communication Skills, Computer Application, and Teaching Strategies.

150 June 13 through July 23, 1993 151

FUNDED BY: FIPSE

Bettye M. Clark, Director

APPENDIX G

SCOPE FOLLOW-UP SURVEY PACKET

- Student Letter
- SCOPE Student Follow-Up Survey Form
- Instructors Evaluation of 1992 SCOPE Participants
- Analysis of Mathematics and Science Teacher Ratings of 1992 SCOPE Participants

CLARK ATLANTA UNIVERSITY

February 9, 1993

Dear

We are preparing for the 1993 Summer Camp Opportunity for Potential Educators (SCOPE) program. I am confident that your academic performance, leadership skills, and level of responsibility were enhanced by your SCOPE experience last summer.

Please complete the enclosed questionnaire so that we can make the program an even more rewarding experience. Indicate your answers on the enclosed scantron sheet with a number two (2) pencil. Please do not bend or fold the scantron sheet. Additionally, ask your mathematics and/or science teacher(s) to complete the enclosed evaluation form using the attached scantron sheet provided for them. The teacher should put your name on the scantron sheet and return it in the self addressed stamped envelope. Please check with your teacher to be sure that s/he mails it.

This information is needed for our project summary report. Please return by February 22, 1993. I trust that your school year has been rewarding. We miss you and think about you often.

Sincerely,

Bettye Clark

Bettye M. Clark, Director
MASTER Institute for Teachers

Enclosure

JAMES P. BRAWLEY DRIVE AT FAIR STREET, S.W. • ATLANTA, GEORGIA 30314 • (404) 880-8000

1992 SCOPE STUDENT FOLLOW-UP SURVEY

SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

NAME_____**GRADE LEVEL (NOW) ___10TH ___11TH ___12TH**
(OPTIONAL)

PLEASE CLEARLY CIRCLE THE APPROPRIATE RESPONSE

1. Which mathematics course(s) did you enroll in for Academic Year 1992-1993?

   a) Algebra I b) Algebra II c) Geometry

   d) Trigonometry e) Calculus

2. Did participation in SCOPE help you in your mathematics course(s) during this school year?

   a) Yes b) No c) NA

3. Was the mathematics course(s) you enrolled in this year a level above your previous mathematics course?

   a) Yes b) No c) NA

4. Was the mathematics course(s) you enrolled in during this year required for graduation?

   a) Yes b) No

5. Did the summer experience of SCOPE make you less fearful of learning mathematics?

   a) Yes b) No

7. Which science course(s) did you enroll in for Academic Year 1992-1993?

   a) Earth Science b) Biology c) Physical Science

   d) Chemistry e) Physics

6. Did participation in SCOPE help you in your science course(s) during this school year?

   a) Yes b) No c) NA

SEE REVERSE SIDE

8. Was the science course(s) you enrolled in this year a level above your previous science course?

a) Yes b) No c) NA

9. Was the science course(s) you enrolled in this year required for graduation?

a) Yes b) No

10. Did the summer experience of SCOPE make you less fearful of learning science?

a) Yes b) No

11. Did your grade in mathematics or science improve this year (1992-1993)?

a) Yes b) No

12. Are you in a college bound track curriculum program?

a) Yes b) No

13. Did the experience of SCOPE stimulate your interest in teaching mathematics or science?

a) Yes b) No

14. Would you like to participate in SCOPE a second summer?

a) Yes b) No

CLARK ATLANTA UNIVERSITY

SUMMER CAMP OPPORTUNITY FOR POTENTIAL EDUCATORS (SCOPE)

INSTRUCTOR'S EVALUATION OF 1992 SCOPE PARTICIPANTS

EVALUATION OF:

NAME OF SCHOOL: Twiggs County Comprehensive H.S.

COMPLETED BY MATHEMATICS INSTRUCTOR

Indicate your rating for each category by completing the attached scantron sheet for the student named above. Please use a No. 2 pencil. Do not fold or bend the scantron sheet.

Excellent = A Good = B Fair = C Poor = D Not Applicable = E

1. Class Attendance
2. Execution of Class Assignments
3. Completion of Homework
4. Acquisition of Knowledge
5. Participation in Class Activities
6. Attitude Towards Learning
7. Performance on Tests/Quizzes
8. Performance in Laboratory
9. Oral Communication Skills
10. Written Communication Skills
11. Critical and Analytical Thinking Skills
12. Study Habits
13. Interaction with Peers
14. Evidence of Self-Discipline
15. Student's Attitude Towards Learning after the SCOPE Experience
16. Student's Potential for Becoming a Teacher of Mathematics and/or Science

OPTIONAL COMMENTS/RECOMMENDATIONS: Please put additional comments into a sealed envelope which will be returned along with your scantron sheet.

ANALYSIS OF MATHEMATICS AND SCIENCE TEACHER RATINGS OF 1992 SCOPE PARTICIPANTS

		MATHEMATICS TEACHERS	SCIENCE TEACHERS
1.	Class Attendance	85% Excellent 5% Good	90% Excellent 10% Good
2.	Execution of Class Assignments	75% Excellent 10% Good	62% Excellent 34% Good
3.	Completion of Homework	75% Excellent 15% Good	59% Excellent 38% Good
4.	Acquisition of Knowledge	50% Excellent 38% Good	38% Excellent 59% Good
5.	Participation in Class Activities	65% Excellent 20% Good	69% Excellent 31% Good
6.	Attitudes Towards Learning	75% Excellent 15% Good	76% Excellent 21% Good
7.	Performance on Tests/ Quizzes	30% Excellent 45% Good	34% Excellent 62% Good
8.	Performance in Lab	25% Excellent 10% Good 50% N/A	48% Excellent 34% Good 17% N/A
9.	Oral Communication Skills	50% Excellent 40% Good	59% Excellent 38% Good 3% N/A
10.	Written Communication Skills	40% Excellent 45% Good	59% Excellent 34% Good 3% N/A
11.	Critical and Analytical Thinking Skills	35% Excellent 50% Good	34% Excellent 45% Good
12.	Study Habits	60% Excellent 20% Good	48% Excellent 48% Good
13.	Interaction with Peers	65% Excellent 20% Good	83% Excellent 17% Good
14.	Evidence of Self-Discipline	55% Excellent 20% Good	62% Excellent 34% Good

Analysis of Mathematics and Science
Teacher Ratings of 1992 SCOPE Participants
Page 2

15.	Student's Attitude Towards Learning After the SCOPE Experience	55% Excellent 15% Good 10% N/A	62% Excellent 17% Good
16.	Student's Potential for Becoming a Teacher of Mathematics and/or Science	50% Excellent 35% Good	69% Excellent 24% Good

APPENDIX H

SCOPE SEMINARS AND FIELD TRIPS

- SCOPE Seminars 1991 - 1993
- SCOPE Field Trips 1991 - 1993

Summer Camp Opportunities for Potential Educators (SCOPE)
Seminars
1991 - 1993

DATE	SPEAKER	SUBJECT
JUNE 25, 1991	Col. Charles Bolden, JR.	"NASA"
JULY 1, 1991	Dr. Michael Addison Chiropractor	"Science Math and Chiropractors"
JULY 2, 1991	Dr. Richard Tyler Orthopedic Surgeon	"AIDS"
JULY 16, 1991	Dr. Christine Branch Center for Disease Control	"CDC"
JULY 23,1991	Mr. Jim Davis Georgia Power	"Applications of Math and Science in Electrical Power"
JUNE 24, 1992	Mr. Rafael Quinones Assistant Director Minority Education And Development Georgia State University	"How Statistics Is Used in Business"
JUNE 26, 1992	Mr. Gordon L. Joyner Attorney-At-Law	"Critical and Logical Thinking"
JULY 1, 1992	Dr. Ora Cooks Associate Professor Clark Atlanta University	"Inspiration and Motivation in Teaching "
JULY 2, 1992	Dr. Patriciann Hurd Fernbank Science Center	"Electro-Microscopy and How It Is Used To Benefit Our Lives"
JULY 8, 1992	Mr. Virgil Carr CPA, Clark Atlanta University	"Mathematical Applications in Accounting"
JULY 14, 1992	Mr. Aaron Henderson Engineer Southern Bell	"Applications of Technology in Science and Engineering"
JULY 20, 1992	Dr. J. Arthur Jones Futura Technology, Inc.	"Mathematics, Science and Technology - What's In It For Me?"

JUNE 16, 1993	Mr. Gordon L. Joyner Attorney-At-Law	"Critical and Analytical Thinking"
JUNE 21, 1993	Dr. J. Arthur Jones	"Mathematics, Science and Technology - What's In It For Me?
JUNE 30, 1993	Dr. J.Ernest Wilkins, Jr. Distinguished Professor Of Physics Clark Atlanta University	"Mathematical Concepts"
JULY 6, 1993	Dr. Howard G. Adams Executive Director National Consortium For Graduate Degrees For Minorities In Engineering And Science (GEM)	"Minorities in Engineering and Science"
JULY 7, 1993	Mr. Aaron Henderson Southern Bell Engineer	"Applications of Technology in Science and Engineering"

Summer Camp Opportunities for Potential Educators (SCOPE)
Fieldtrips
1991-1993

Date	Fieldtrip
June 27, 1991	Underground Atlanta
July 4, 1991	Lake Lanier Island
July 5, 1991	Zoo Atlanta
July 9, 1991	Afro-American Panoramic Experience Museum
July 13, 1991	Six Flags over Georgia
July 18, 1991	SCITREK Learning Center
July 20, 1991	Outing-Dr. Hood's House
July 23, 1991	Shenandoah Science Center
June 19, 1992	Afro-American Panoramic Experience Museum
June 30, 1992	Atlanta Botanical Garden
July 7, 1992	Shenandoah Science Center
July 3, 1992	Lake Lanier Island
July 13, 1992	Six Flags Over Georgia
July 18, 1992	Six Flags Over Georgia
June 22, 1992	Fernbank Science Center
June 17, 1993	SCITREK Learning Center
June 22, 1993	Shenandoah Environmental Center
July 1, 1993	Fernbank
July 5, 1993	Six Flags over Georgia
July 17, 1993	Bar-B-Q at Dr. Clark's House
July 15, 1993	Atlanta Botanical Garden

Summer Camp Opportunities for Potential Educators (SCOPE)
Cultural Activities
1991-1993

Date	Cultural Activity
June 22, 1991	Kingfest
July 11, 1992	Skating at Screamin' Wheels
July 13, 1992	Movie Night
July 16, 1992	Pizza & Birthday Party
July 18, 1992	Six Flags
July 22, 1992	Surprise Party for Students
July 23, 1992	Talent Show
July 24, 1992	Banquet
June 19, 1993	Jazz and Art Festival (Grant Park)
June 25, 1993	Spades Tournament
June 26, 1993	APEX
June 26, 1993	Freedom Walk (Auburn Avenue)
July 3, 1993	Martin Luther King Jr., Center for Non Violence
July 8, 1993	History Quiz Bowl
July 10,1993	Herndon Home
July 11, 1993	Nelson Mandela Choir
July 17, 1993	Talent Show
July 22, 1993	Banquet

APPENDIX I

ACADEMIC FOLLOW-UP

- Letters from SCOPE Participants
- Letters from Teachers/Administrators
- Letters from Parents

STUDENT LETTERS

Betty M. Clark,

I have a few comments on the Summer Camp Opportunity for Potential Educators. I think it's an excellent program because not only do you meet new people but you learn many ~~thinks~~ things about teaching. It opened my eyes that teaching isn't bad. The teachers were also excellent. The new caculator is also helping one greatly in ~~the~~ Algebra II. I would recommend this camp to anyone. This program has been beneficial to my learning abilities. Thanks again.

Sincerely,
Christy Ward

This will be a most ~~memo~~ memorable experience for me as a freshman. I am proud to wear my SCOPE t-shirt.

BEST COPY AVAILABLE

February 15, 1993

Bettye M. Clark
Director
Master Institute for Teachers

Dear Mrs. Clark:

I would just like to thank you for allowing me to participate in your 1991-1992 SCOPE program. It was a very enlighting exreriment and it helped prepare for my 1992-1993 academic school year. I am sure that it was your SCOPE program that led me to raise my grade point average from a 3.8 to a 4.0.I would just like to thank you for that opportunity.

I would be honored to attend another SCOPE program.

Sincerely,

Rita Johnson

Rita Johnson

Enclosure

BEST COPY AVAILABLE

Feb 17, 1993

Dear Dr Clark,

I am pleased to inform you that I am doing alright in my Studies this year at D. M. Therrell High School. I would like to again thank-you for a "Great" Summer at CAU and thank you for the TI-81 (calculator). I am applying this year for the Westminster Summer Scholars program, and maybe another program at Clark. I was recommended for the Governor's Honors' Program in English. I did three projects: Math (Successful Strategies to Solving word Problems.)

Social Science => (A Penny Saved, a Penny Earned: Which Store Really Saves the Consumer the Most Money)

Science: (a Chromatographic Analysis of the Effects of Heavy Metals on the Development of Drosophila Melanogaster)

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All of which won first place at the school fair and advanced to the city-wide competition. I am presently holding a 4.0 G.P.A. and I am participating in the CEMP Program at Clark under the direction of Ms. Gisele Parker. I also would like to inform of you that one of our Summer Scopians has moved her new address is:

Ms Jumoke F.
1540 Maybrook Drive
Raleigh, N.C. 27610

Sincerely,
Ms. Gretha J

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TEACHER/ADMINISTRATOR LETTERS

2-16-93

Clark Atlanta University
1992 Scope Sponsor
Atlanta, Georgia

I would like to offer a few comments in regard to Camille Blakely. This is the first year I have taught Camille. I don't really know how she was prior to the "Scope" experience, but she is an extremely bright person when she applies herself. She exhibit normal teen behavior in regard to talking, preparedness and self-direction. I do think she will be an extremely successful person with what she decides to be her career.

If your workshop had anything to do with her vocationalities, keep do what you are doing. It's a pleasure working with students like Camille.

Sincerely
Jimmy L. Kerfoot

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RECEIVED 8/3/93

FMA

BERRY D. JORDAN, ZONE 4 PRESIDENT

* FYI
* NO Attached

Federal Managers' Association

28 JUL 1993

Dr Bettye M. Clark, Director
MASTER Institute for Teachers
Clark Atlanta University
P. O. Box 171
Atlanta, Georgia 30314

Dear Dr Clark

In the words of the second year students, the 1993 SCOPE Program was the best ever. Please accept my hand in appreciation and friendship for a job well done. Extend to your staff sincere thanks for their professional extraordinarily cooperative spirit experienced by the students throughout the program and to parents and friends during the closing banquet. Every detail was planned and executed expertly and professionally. All of those who took part is making the program such a success are to be congratulated and commended.

I am quite sure that any success experienced by SCOPE participants surly will have been fostered by your involvement.

As a positive-thinking and result-oriented native of Fort Valley (Ole Hunt High and Fort Valley State College), again permit me to say Fort Valley's gift to Clark Atlanta is 'Dr Bettye Jean Mathis Clark'.

Sincerely

BERRY D JORDAN

121 FOXWOOD CIRCLE • BONAIRE, GEORGIA 31005

MORGAN COUNTY HIGH SCHOOL
1231 College Drive
Madison, Georgia 30650
(706) 342-2336

July 15, 1993

Dr. Bettye M. Clark, Director
Master Institute for Teachers
Clark Atlanta University
P. O. Box 171
Atlanta, Georgia 30314

Dear Dr. Clark:

I am writing this letter on behalf of Morgan County High School to commend the S.C.O.P.E. Program for the outstanding job you are doing in providing summer enrichment opportunities for needy students. Over the years, we have had the fortune to have five of our high school students accepted into the S.C.O.P.E. summer program at Clark-Atlanta University. Upon returning home after completing the program, all of our students talked about the rigorous academic regimen they were engaged in. They were also excited because they said they visited Martin Luther King's grave-site, the High Museum in Atlanta, Six Flags Over Georgia, the Atlanta Braves, and numerous other tourist attractions in Atlanta that they had only heard about before the S.C.O.P.E. Program.

It is obvious that your program provides excellent role models for these students. Some of them came back talking about the successful minority engineers and mathematicions they heard speak at your seminars. Many of them have begun to see the same career possibilities for themselves. So far, we have had two students to graduate from high school that participated in your program. Both of these students have been accepted at colleges and neither of these students have other family members that have attended college in the past.

Several of our teachers at the high school have commented to me on how the students come back to school re-focused and ready to work. The students have even commented that after completing your program, they were better able to complete their class assignments because of the emphasis that was placed on time management throughout the duration of the program.

Thank you for your concern for quality education and the invaluable service you are providing to our school district.

Sincerely,

Miller Jordan

Miller Jordan, Ph.D.
Assistant Principal

MJ/jl

PARENT LETTERS

HOWARD UNIVERSITY
WASHINGTON, D.C. 20059

SCHOOL OF BUSINESS
Department of Accounting

RECEIVED 12/7/93

November 22, 1993

Dr. Bettye M. Clark
MASTER Institute for Teachers
Clark Atlanta University
P.O. Box 171
Atlanta, GA 30314

Dear Dr. Clark:

The purpose of this letter is to thank you for the excellent program you sponsored this past summer. My son, Thomas A. Tate, Jr., was a participant in the 1993 Summer Camp Opportunity for Potential Educators (SCOPE). Having just received his grades for the first marking period, I was compelled to write you and tell you how beneficial your program was to his performance. Furthermore, he enjoyed being on the Clark Atlanta University campus and meeting all the other students. Thomas found the program challenging and exciting.

I wish to give a special thank you to your assistant, Ms. Billie Hicks, who was very helpful during the application stage. We could not have completed the process without her help.

In closing, I thank you and Clark Atlanta for such an outstanding program. We plan to be on your campus on December 10, 1993, and I hope that I have the opportunity to stop by your office.

Sincerely,

Ruthie G. Reynolds, Ph.D., CPA, J.D.
Acting Chair

Dear Dr. Clark:

Words cannot express all of the appreciation and gratitude We feel for you and the SCOPE program. It has meant so much to Timothy and his family.

It has benefited in ways too numerous to mention. I feel that the greatest benefits are yet to be realized. That will be when he enters school in August so much better prepared to master his science and math courses. It will also be apparent when he is able to gain acceptance into a major University after high school and be better prepared to pursue his choice of career.

Please call on us if we may be of assistance to you in any way.

May God continue to Bless You.

The Hill Family.

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mahogany

a celebration of CULTURE

Ambassador

178 05367 0 09200 04603 0

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APPENDIX J

SCOPE NEWSLETTER

THE SCOPE JOURNAL

Clark Atlanta University | July 24, 1992 | Volume 1, Number 1

A Reflection on SCOPE

On June 14th they assembled. Young African American high school students from across the country traveled hundreds of miles to reach the campus of Clark Atlanta University. Many came with the hopes of finding a greater understanding of their future profession--teaching.

The work schedule was rigorous but they were dedicated. In their six weeks of classes, the SCOPE participants were invovled in intense studies in english literature, mathematic, chemistry computer science.

The SCOPE instructors felt that academics were just as important as recreation. The participants of this program attended many seminars ranging from the advancement of African Americans to understanding urban violence. They also visited such historical sites as the APEX museum and the black owned and operated businesses on Auburn Avenue.

During the participants stay on campus, many experienced what college life is really like; from having to find quarters to wash clothes to managing money away from home.

On July 25th, these fifty-one Summer Camp Opportunity for Potential Educators participants will pack their bags and start for home. They will leave with the memory of all-night talk sessions, room raids, and roommate wardrobe raids.

In the few moments before they depart for the last time there will be alot of things said but nothing will be more important than the friendships during the six weeks they shared as a family. In fact, there was not one person in this program who was not touched by the humor and kindness of another SCOPE participant.

Dear Heavenly Father:

Give us the strength to shine as bright as the North Star. Teach us, Lord, to build a modern day underground railroad for our children. Give us, O Heavenly Father, the power to lead our children out of the darkness of ignorance and into the light of education. Father, help help us to lift as we climb and to know that we are loved by the SCOPE Staff, for they are our brothers and sisters, our mothers and fathers.

Inside we have cried, O God, that in time we will see. O Prince of Peace, show us that arguing and fighting each other divides us as a people. Lord, teach us Your lesson. Give us Your lesson plan for living. God, You sent us SCOPE and sent us to SCOPE. Now, we ask that You teach us to be appreciative.

Lord--our stirring wheel and our shoulder--we ask You to give us the foresight to see the medal of education and the certificate of freedom that SCOPE provides. And God, give us the faith to know that in time we will see, we will understand, we will appreciate, and we will long to have back our summer in SCOPE. Amen.

The SCOPE Prayer

LaNisha R. Thomas

SCOPE would like to thank everyone who made this opportunity available for us this summer. Special thanks go out to FIPSE, Exxon, and General Mills for their continued support of SCOPE in particular and education in general. Thank you all.

SCOPE '92

BEST COPY AVAILABLE

Letters to Jack 'n' Wanda

Dear Readers,

I would just like to comment that, overall, I'm really enjoying the SCOPE program. I'm meeting alot of new people, and making many new friends. The only negative comment I have about the SCOPE program is that it is not organized. Almost every event that they have planned has not gone as scheduled. I think that everything should be thoroughly arranged ahead of time, and then announced to us.

Sincerely,
Content Enough

Dear Content Enough,

I am happy to hear that you are enjoying the SCOPE Program. I'm sure that things will become more definite and stable as the program continues. Just give the program a few more days and I'm sure things will get right on track.

Dear Wanda,

I have a problem. About three weeks ago I met this guy who seemed to be a really nice person. (They all do in the beginning.) I gave him my number and we've been talking on the phone to each other ever since. Last week he told me that he has been holding back his feelings for me because he has been hurt so many times before. He told me about some of the incidents that he has been through and I told him about some of the low-down dogs I have gone out with. That night was the first time that I felt really close to him. So a few days later he came to visit me and we ended up kissing and hugging and things of that nature. I started to believe that maybe this was the beginning of a true relationship. Then I thought about the situation. The very next day he called me and we got into a huge argument. He has a bad habit of telling me what to do. So I told him how I felt about it. After the exchanging of very cruel words, we made up. Later on that night, he called me trying to start another argument.

See page 3

From the Desk of Dr. Bettye Clark

The SCOPE (Summer Camp Opportunity for Potential Educators) Program seeks to address the critical shortage of minority students for careers in mathematics and science teaching. SCOPE is also designed to increase the access of minority students in advanced mathematics and science courses at the pre-college level. The program provided a unique opportunity for content enrichment and an introduction to professional development and effective teaching strategies. There were 50 students participating in SCOPE '92, sixteen males and thirty-four females.

Dr. Clark is Director of the MASTER Institute for Teachers at Clark Atlanta University. Dr. Clark has also held the position of Chair of the Mathematics Department.

SCOP(E)ING AT THE MOVIES...

The Revenge Catwoman or Batman?

Forget Batman! They should have called this sequel "Catwoman's Revenge." Homegirl totally went off! However, before we get into that, let me tell my fellow SCOPEians about the plot. Of course, we return to Gotham City with our favorite hero, Batman. Unexpectedly, we don't have the usual Batman-against-villain-Batman-wins situation with this outrageous sequel. We have action, adventure, suspense, and all of the other qualities that would make chills race up and down our spine. Batman (Michael Keaton) is forced to keep the Penguin (Danny Devito) from becoming the mayor of Gotham City after his arrival from the sewers. While the Penguin and Batman continuously go head to head in Gotham Square, the Catwoman also wants to get a piece of the action. A push-over secretary turned into a cat when she was pushed out of the window to her "death" by her boss. She had discovered one of his dark secrets. This movie has action in every corner of the Gotham Streets. Hey! Don't forget about romance! Viewers, you even have the opportunity to see a little love goin' on between Catwoman and Batman. Do you want to know how it all turns out? Go and check it out. "Leaping lizards, Batman. Is the movie really that good?" You don't know, you better ask somebody.

Kid 'n' Play, y-a-l-l

Word Up! "Class Act" has it goin' on! This movie stars none other than Kid 'n' Play, two of the hottest rappers today. In this comedy, Kid plays a stuffy nerd named Dustin Penderhughes and Play is a tough, streetwise character called Blade. As the story opens, Blade is just being released from jail and must go back to high school to maintain his parole obligations. Meanwhile, Penderhughes, with his 4.00 average, must pass physical education to graduate. Wouldn't you know it? On the very first day of school, their files and pictures are mixed up, along with their true identities. The next ninety minutes involve hysterical, knee-slapping, tear-jerkin' comedy as Penderhughes and Blade try to go through school by trading places. You'll cry. You'll beg for more. However, and most importantly, you will not feel as though those five dollars you had to beg to get from your parents went to waste. You're assured to want to see this movie again and again!

4 REAL DOUGH!!

Cont. from page 2

I didn't feel like arguing, but he was determined. Some of the words he called me were #*&!, !%, and #$%#. He told me that he respected me, but he was just playing with my mind. I don't believe him. Later on, I found out that another guy liked,me but the only problem is that he is from out of state and I am from Atlanta. What should I do?

Response: Obviously, you should just stay single!

HOROSCOPES

CANCER:
It's your time of the year fellow Cancers. There is some financial trouble in the future, but there is a way out. Start looking for that special love one because he or she is looking for you.
(JUNE 21-JULY 22)

LEO:
Look out for that fly guy or girl that's got it going on. You could meet him or her at a relative's house.
(JULY 23-AUGUST 22)

VIRGO:
Although you may not think so, you may be a good counselor, and people respect your opinion. Start exploring your creative talents you've been wanting to develop.
(AUGUST 23-SEPT 22)

LIBRA:
Your home life is doing much better now, although it may not be a good idea to get in the middle of someone else's fight. You may also find the man or woman of your dreams. Hold on tight and don't let him/her go!
(SEPT 23-OCT 22)

SCORPIO:
Your writing talents may land you big reconition among friends, family, or enven the soap opera scouts.
(OCT. 23-NOV. 21)

SAGITTARUS:
Continue talking to your parents about any problems with your steady boy/girl friend. Your relationship depends on it!
(NOV. 22 - DEC. 20)

CAPRICORN:
Continue to strive for your financial goals. Keep an eye out for a big break and take advantage of the opportunity!
(DEC. 22 -JAN 19)

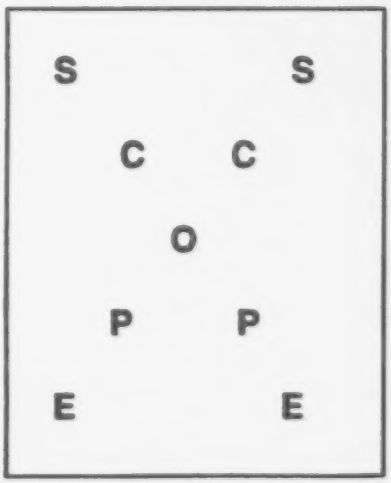
AQUARIUS:
It is in your stars to fall in LOVE! Your current sweetheart, (or future love) is yours to hold for life. Learn to love one another and it will last forever.
(JAN 20 -FEB 18)

PISCES:
Being an artist will probably become your profession. If you didn't know, then you better ask somebody!

FEB. 19 - MARCH 20
HOROSCOPEARIES:
Now that the spring months are over, you may find yourself down on your luck. Don't despair! Your friends will help you out.
(MARCH 21 - APRIL 19)

TAURUS:
You have a natural love for jewelry and luxury items, may cause you to find yourself in a financial bind. Wait and let your boy/girl friend buy them for you.
(APRIL 20- MAY 20)

GEMINI:
Your split personality can get you in a heap of trouble! Hold your tongue and your summer will run smoothly.
(MAY 21- JUNE 20)



SCOPE '92 CALENDAR

June 14 - July 25, 1992

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
June 14 Flag Day RECEPTION/OPENING OF PROGRAM	June 15 TESTING (GYM)	June 16 9:00am CLASSES BEGIN	June 17	June 18	June 19	June 20 *Summer begins*
June 21 *Father's Day*	June 22	June 23	June 24 4:00pm **MR. RAFAEL QUINONES, GA TECH	June 25	June 26 9:00am MR. GORDON JOYNER, ATTORNEY	June 27
June 28	June 29	June 30 *APEX MUSEUM (BUS LEAVES MD 3pm)	July 1 *Dominion Day (Canada)* 4:00pm **DR. ORA COOKS (MD201)	July 2 4:00pm **DR. PATRICIANN HURD (MD201)	July 3 *LAKE LANIER PARK (BUS LEAVES MD 10am)	July 4 *Independence Day*
July 5	July 6	July 7 *SHENANDOAH ENV. & EDUC. CENTER (9am-Noon)	July 8 4:00pm **MR. VIRGIL CARR, CPA (MD201)	July 9 *MOVING IN THE SPIRIT*(7-9) 3:30pm *BOTANICAL GARDEN	July 10	July 11
July 12	July 13	July 14 4:00pm **MR. AARON HENDERSON, SOUTHERN BELL (MD201)	July 15 DR. STRAUMANIS - SCOPE SITE VISIT	July 16 STRAUMANIS/COLE (11:30)	July 17	July 18 SIX FLAGS
July 19	July 20 4:00pm **MR. REGINALD WILLIAMS, STADIUM (MD201)	July 21 *FT. MCPHERSON (2-5)	July 22 4:00pm **DR. J. ARTHUR JONES, FUTURA TECH. INC., (MD201)	July 23 6:00pm TALENT SHOW	July 24 7:00pm SCOPE BANQUET	July 25

*FIELD TRIPS **SEMINAR SPEAKERS

7/22/1992

DEDICATION

"...Light is Knowledge, Consciousness, and Wisdom"

WHEN THINGS GO WRONG
AS THEY SOMETIMES
WILL
WHEN THE ROAD YOU'RE
TRUDGING SEEMS ALL UP
HILL
WHEN THE FUNDS ARE
LOW AND THE DEBTS ARE
HIGH
WHEN YOU WANT TO
SMILE , BUT HAVE TO
SIGH
WHEN THINGS ARE PRESS-
ING YOU DOWN A BIT
REST IF YOU MUST BUT
DON'T QUIT

LIFE IS QUEER WITH IT'S
TWIST AND TURNS
AS MANY OF US WILL
SOMETIMES LEARN
AND MANY A FELLOW
HAVE TURNED ABOUT
WHEN HE MIGHT HAVE
WON HAD HE STUCK IT
OUT DON'T GIVE UP
THOUGH THE PACE SEEMS
SLOW
YOU MAY SUCCEED WITH
ANOTHER BLOW

OFTEN THE GOAL IS
NEARER THAN
IT SEEMS TO A FAINT AND
FAULTING MAN
OFTEN THE STRUGGLER
HAS GIVEN UP
WHEN HE MIGHT HAVE
WON THE VICTOR'S CUP
AND HE LEARNED TO
LATE WHEN THE NIGHT
CAME DOWN
HOW CLOSE HE WAS TO
THE GOLDEN CROWN

SUCCESS IS FAILURE
TURNED INSIDE OUT
IN A SILVER TINT, IN A
CLOUD OF DOUBT
AND YOU NEVER CAN
TELL HOW CLOSE YOU
ARE YOU MAY BE NEAR
WHEN IT SEEMS AFAR
SO STICK TO THE FIGHT
WHEN YOU ARE HARDEST
HIT IT'S WHEN THINGS
SEEM ROUGH WHEN YOU
MUSTN'T QUIT

AUTHOR UNKNOWN

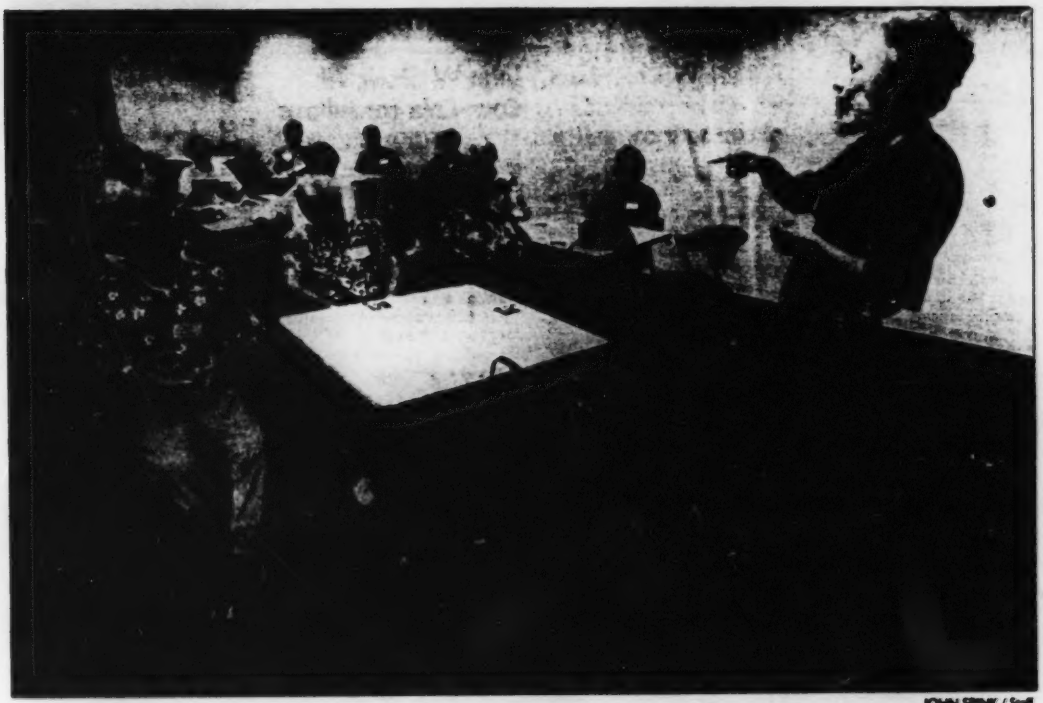
TO THE BLACK YOUTH
WHO MARCH ONWARD
AND UPWARDS TOWARD
THE LIGHT, THIS POEM IS
RESPECTFULLY DEDI-
CATED TO YOU (SCOPE), A
QUOTE FROM CHARLES H.
WESLEY. KNOW THAT
THE LIGHT IS KNOWL-
EDGE, CONSCIOUSNESS,
AND WISDOM. ALL CHAR-
ACTERISTICS IN WHICH
YOU CAN AND WILL POS-
SESS TO CREATE A POSI-
TIVE FUTURE FOR OUR
PEOPLE. I ENCOURAGE
YOU TO BECOME SCHOL-
ARS IN SCIENCE, MATHE-
MATICS AND HISTORY
BECAUSE THE BEST
THING YOU CAN DO FOR
YOURSELVES AND OUR
PEOPLE IS TO "KNOW THY
SELF". BUILD THE NU-
CLEUS FOR BLACK CON-
SCIOUSNESS AND SCHOL-
ARSHIP. CONTINUE TO
LEARN AND THE INFOR-
MATION YOU LEARN,
SHARE. IN A STATEMENT
MADE FROM A BLACK
SCHOLARLY GIANT OF
THE 20TH CENTURY,
W.E.B. DUBOIS, "EACH
ONE, TEACH ONE". WE
ALL MUST TEACH EACH
OTHER AND WE ALL
MUSTN'T QUIT.

*FROM YOUR MENTOR/
COUNSELOR: JARROD K.
GRANT*

APPENDIX K

NEWS RELEASES/ARTICLES

- The Atlanta Journal/The Atlanta Constitution
- FIPSE Teacher Education Project Newsletter



JOHN SPINK / Staff

Maceo Dailey (right) teaches senior citizens about Afrocentric studies as a part of Spelman College's Elderhostel program.

AUC forgoes a summer break

Schools sell their campus with recruiting, other programs

By John Blake
STAFF WRITER

Summer may mean lazy afternoons at the beach to students on vacation from the Atlanta University Center (AUC), but it means something else to the college administrators left behind.

"It's work, work, work," said T.J. Blocker, director of a summer science program for high school students at Morehouse College. "On any given day, there's anywhere from 700 to 1,000 kids on [Morehouse's] campus."

While most of the estimated 10,200 students at the Atlanta University Center's six schools head home, another part of the AUC gears up.

The students are replaced by grade schoolers who attend Morris Brown College's Kids College; high school science whizzes who attend Morehouse's Summer Science Institute; and older persons who take speech classes at Spelman College's Elderhostel program.

Though three of the AUC schools offer summer classes for their regular students, administrators have discovered that keeping the campus buildings filled with people during the summer is a good way to promote their schools — and keep money coming in.

"Colleges are looking for all kinds of ways to use what they have," said Nan Thomas, director of Kids College, a six-week academic enrichment program for elementary and junior high school students that Morris Brown started this summer.

The AUC colleges want their schools to rub off on potential students.

Businesses enroll in campus

Another way the AUC uses what it has during the summer is to rent space to businesses.

With its quiet, tree-lined campus, Spelman College has attracted organizations such as Clairol and Grady Memorial Hospital for seminars and conferences.

Jacqueline Sheppard, interim director of continuing education at Spelman, said businesses save money using college campuses.

"Conference centers are cheaper than hotels," Dr. Sheppard said. "And there are a lot of distractions at a hotel. When you come to a college campus, you can get away from it all."

The college setting is what brought Grady to Spelman, said Dewey Hickman, director of planning, marketing and evaluation for the hospital. Mr. Hickman staged a two-day management development workshop at Spelman. The conference center was cheaper than a hotel, and the environment was more relaxing, he said.

"As nice as the Marriotts are, once you get in them you don't know what city you're in," Mr. Hickman said.

The Atlanta Church of Christ chose Spelman when it invited college students from around metro Atlanta for three leadership conferences, said Kevin Holland, a church spokesman.

Mr. Holland said the church chose Spelman because it was part of the AUC, which has a reputation for producing African-American leaders.

"We felt the atmosphere would be really high-charged, and people could feel a sense of history," Mr. Holland said. "We wanted that sort of vision to rub off on the college students."

A great recruitment tool

And the AUC colleges want their schools to rub off on potential students.

At Morris Brown's Kids College, children take courses in math, reading, creative writing, speaking and computers. But they're also learning about Morris Brown, said Ms. Thomas, the program's director.

"Who knows? Out of this we may get future students," she said.

At Clark Atlanta University, the SCOPE program (Summer Camp Opportunity for Potential Educators) recruit minority high school students who may choose math or science careers.

Bettye M. Clark, SCOPE's director, said the program's top goal is to produce minority science and math teachers, "but we do hope these students come to CAU."

Mr. Blocker, director of the Summer Science Institute at Morehouse, takes the same sales approach.

Through his program, Mr. Blocker is able to attract some of the brightest high school students from across the country. The students must have a minimum Scholastic Aptitude Test score of 1,000 and at least a B average before they can enter the program.

"Once they get on campus, we start our propaganda campaign," Mr. Blocker said.

Mr. Blocker brings speakers such as Mayor Maynard H. Jackson and Fulton County Commission Chairman Michael L. Lomax, both Morehouse alumni. When the students move into dormitories, they meet their dorm counselors — most of them Morehouse alumni.

By the end of the seven-week course, Mr. Blocker said, "They walk away wearing Morehouse paraphernalia, and they're singing the school song."

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Atlanta Journal Constitution

Summer Camp Opportunity for Potential Educators

(SCOPE)

Dr. Bettye M. Clark, Director

Clark Atlanta University (CAU) offers an early identification and recruitment summer camp program for future mathematics and science teachers. The Summer Camp Opportunity for Potential Educators (SCOPE) Program under the direction of Dr. Bettye M. Clark seeks to address the critical shortage of minority mathematics and science teachers by developing a model pre-college summer camp to recruit and stimulate the interest of minority students for careers in mathematics and science teaching. SCOPE is also designed to promote minority students to study advanced mathematics and science courses at the pre-college level. The program provides a unique opportunity for content enrichment and an introduction to professional development and effective teaching strategies. There are 50 rising tenth and eleventh graders, 16 males and 34 females, participating in SCOPE '92.

The program is sponsored by the Fund for the Improvement of Post Secondary Education (FIPSE) of the U.S. Department of Education. This is the second year of a funded three year project for SCOPE. The National Science Foundation (NSF) through the Statewide Systemic Initiatives in Mathematics, Science and Engineering Education has funded the Georgia Initiatives in Mathematics and Science (GIMS). CAU is part of the Atlanta Center of GIMS. The Atlanta Center will include the twelfth graders in SCOPE and provide scholarships for BS/MST five year teacher certification degree in mathematics and science education.

File SCOPE write up

TEACHER EDUCATION PROJECT NEWSLETTER

FIPSE

Fund for the Improvement of Post Secondary Education

Issue 6

June 1991

From the FIPSE Program Officer

Jaymie L. Lewis

Once again, thanks to the efforts of Barbara Allen, Assistant Director in the School of Teacher Education at San Diego State University, we are able to present to you the FIPSE Teacher Education Project Newsletter. From FIPSE's perspective, this publication has proven to be an informative tool and an excellent mechanism for dissemination of exciting innovations. Based upon this year's response to the invitation to participate, project directors also find it profitable. Much has been happening at FIPSE since our last newsletter, especially regarding our initiatives in school university partnerships and teacher education. Let me bring you up to date.

We are pleased to report several substantive results of the highly successful Conference on College/School Partnerships to Improve Teaching and Learning that we cosponsored with the Fund for the Improvement and Reform of Schools and Teaching (FIRST) in September, 1990. First, we have proposed a new grants competition in cooperation with FIRST: National Project for College/School Partnerships to Improve Learning of Essential Academic Subjects, Kindergarten through College, with a proposed deadline of January 15, 1992. Collaborative projects of two or more organizations, including institutions of higher education, schools, local educational agencies, professional and disciplinary associations, and museums are all eligible to apply for these 2- and 3-year grants that focus on English, foreign languages, history, geography, mathematics and natural science. Programs should (1) design curricula and courses that build upon prior learning, (2) encourage a content-based pedagogy, (3) develop helpful textbooks, and (4) prepare school and college teachers to work with better-articulated curricula.

Also, we are editing a collection of papers from the FIPSE/FIRST Conference, tentatively entitled "Seamless Schooling: Teaching and Learning Together from Grade School through Grad School." We expect a publication date sometime this Fall. Please contact Sherrin Marshall at FIPSE for additional information about this publication and detailed guidelines for the competition--and help us spread the word!

One change, a particular benefit to secondary education but a deeply felt loss for FIPSE, is the departure of our friend and colleague, David Holmes. David, former Program Officer and Coordinator of the Comprehensive Program, has accepted the position of Headmaster at Suffield Academy in Suffield, Connecticut. Many of you have met and worked closely with David--either through this newsletter, as part of FIPSE's teacher education cluster business, or as monitor of your projects. Those who know him will agree that Suffield Academy has gained an extraordinary educator and loyal advocate of the schools. We wish him tremendous success in his new adventure. Sherrin Marshall and I look forward to working with you in the future.

As always, 'tis the FIPSE season for final selection of new comprehensive grants. This list is impressive. We look forward to seeing many of you--including new directors--at our Project Directors meeting, November 1-3 in Washington.

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New Resources and Fresh Perspectives for a Secondary Math/Science Teacher Ed Program

Renssalaer Polytechnic Institute

Lester Rubenfeld
Director

Rensselaer Polytechnic Institute, a research-oriented technological university, is addressing the problem of the lack and poor training of secondary school mathematics and science teachers through a problem-solving approach to the teaching of teachers. The "education" part of the teacher educaton program has been developed with FIPSE support and involves a 12 credit, problem-solving, first-year experience; a 12 credit one semester student teaching and seminar experience; and a 3 credit course in the development of instructional materials.

The program will begin in Fall 1991 with eleven students representing a wide array of math and science focus and level of experience. The program of study has been arranged so that undergraduate students will graduate on time with a degree in their chosen major as well as New York State certification to teach mathematics or one of the sciences or several of these areas.

The first year's experience will join RPI students with five local secondary school teachers. Together with four experts in cognitive psychology; history, philosophy and sociology of education; methods of teaching mathematics; and methods of teaching science, students will engage in a problem solving approach to learn how to teach. The program is totally context based in that throughout the year studetns will experience actual classroom situations. Then, through an ongoing problem-solving seminar at RPI, they will be presented with resources needed to understand these situations.

As a final experience after a full 15 weeks of student teaching, the pre-service RPI students will enroll in a 3 credit instructional materials development course which will have as its objective the translation of the New York State mathemtics and science syllabi into useable classroom materials. The students will field test thse instructional materials, and the best will be collected, published, and distributed nationally.

SCOPE

Clark Atlanta University

Bettye Clark
Director

FIPSE has awarded funding for the three-year Summer Camp Opportunity for Potential Educators (SCOPE), a minority recruitment and summer camp enrichment program for future teachers of mathematics and science. The program seeks to address the critical shortage of competent minority teachers by developing a model pre-college summer camp to recruit, stimulate, and retain the interest of minority students for careers in mathematics and science teaching. It provides a unique opportunity for content enrichment and an introduction to professional development and teaching strategies.

The SCOPE program provides a six-week summer camp for fifty 10th and 11th graders with demonstrated leadership qualities, scholastic ability, and desire to become teachers of mathematics and/or science. Exemplary teachers in the School of Arts and Sciences, the School of Education, and public schools serve as instructors and role models. To meet the overall goal, SCOPE will focus on the following:

- Recruiting minority students for careers in teaching mathematics and science;
- Providing early clinical experiences with mock teaching exercises and tutoring;
- Increasing the access of minority students to advanced math and science;
- Conducting seminars by master teachers to stimulate an interest in teaching;
- Providing seminars for parents on how to enhance educational opportunities for their children; and
- Giving seniors in the program an opportunity to enroll in college credit courses during the last summer in SCOPE.